

## PROJECT INFORMATION

<b>Project Title</b>	Hidden Falls Regional Park Agricultural and Public Use Improvements
<b>Brief Description</b>	<p>Placer County seeks funding to support the goals of long term ranching, habitat protection, and public access at Hidden Falls Regional Park (Hidden Falls). This proposal includes the most critical infrastructure improvements needed to support these goals including repair of the existing stock pond and irrigation canal to correct uncontrolled seepage and capacity loss from sediment, treatment of one mile of eroding ranch roads, repair of perimeter fencing, and construction of watering troughs to deter grazing animals (including public equestrians using the trail system) from stream courses. The Work Plan and Schedule section describes the individual tasks and deliverables in detail. Hidden Falls is a 1,200 acre open space preserve and passive park owned by Placer County and located between the communities of Auburn and Lincoln. In 2006, the easterly 220 acres of Hidden Falls were opened to the public with seven miles of trails and amenities. Since its opening, Hidden Falls has increased in popularity, drawing visitors from as far away as the Bay Area. On November 20, 2011, the San Francisco Chronicle published an editorial directing Bay Area residents to Hidden Falls and praising the friendly nature of the diverse Park users, stating, "Bikers and equestrians, who's encounters can resemble something akin to 'Mountain Lion vs. Bambi', have made peace at Hidden Falls Regional Park near Interstate 80 in the Auburn Foothills. Maybe there's hope for the whole human race, after all". The remaining 980 acres are under development and the combined 1,200 acre Park is expected to be fully open to the public in 2013 with 30 miles of trails, bridges, picnic areas, interpretive signage, and parking facilities at the easterly end of the property. Placer County and its grant funding partners, including Sierra Nevada Conservancy, have invested \$10 Million into the purchase and development of Hidden Falls Regional Park in order to protect its natural resources and support public access and enjoyment. The Agricultural and Public Access Improvements Project has identified the most critical deficiencies on the Hidden Falls property that need rehabilitation in order to support long term ranching, aid in wildfire risk reduction through vegetation grazing, and reduce sediment into the Coon Creek watershed. Hidden Falls is made up of two historic cattle ranches and currently supports 75 to 100 head of cattle under a lease to the former owners, the Spears Family (See lease agreement attached under Section 6.c). Fencing and infrastructure maintenance related to ranching operations is performed by the Spears Family to a level that supports their current operations. In December 2013, the current grazing lease will expire (electronic copy of current grazing lease attached), and Placer County will implement a long term management plan that will continue ranching and grazing for the purpose of vegetation management, habitat health, and agricultural preservation. The long term plan will support continued grazing with integrated public use via the 30 mile trail system. An initial draft of this long term plan, titled</p>

	<p>“Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan, was created in 2007 by the Placer County Resource Conservation District and UC Cooperative Extension. A copy of the plan is included electronically as “LTMP.pdf”. The Plan is intended to adapt as more experience is gained in the effective use of grazing management. The model of integrated grazing with public trails has proven viable in other open space parks including those of the respected East Bay Regional Open Space District. In order to achieve the goals of vegetation management and agricultural preservation at Hidden Falls, it is expected that Placer County will contract with a rancher (or multiple ranchers) who is experienced in habitat focused vegetation management through grazing as well as multi-species animal husbandry. Through the generous support of SNC, over 100 acres of shaded fuel breaks have already been established at Hidden Falls. Grazing will be a key tool in effective maintenance of these shaded fuel breaks. Placer County supports public/private partnerships at Hidden Falls. To date, REI, Inc has made use of Hidden Falls for leading classes such as hiking and GPS guidance. In return, REI has organized numerous volunteer events that have aided in the development of the Park. Likewise, Hidden Falls will offer valuable partnerships with ranchers to support the local agricultural economy and provide management benefits to the Hidden Falls property</p>
<b>Total Requested Amount</b>	325,000.00
<b>Other Fund Proposed</b>	82,500.00
<b>Total Project Cost</b>	407,500.00
<b>Project Category</b>	Site Improvement/Restoration
<b>Project Area/Size</b>	1200
<b>Project Area Type</b>	Acres
<b>Have you submitted to SNC this fiscal year?</b>	No
<b>Is this application related to other SNC funding?</b>	No

<b>Project Results</b>
Infrastructure development/improvement

<b>Project Purpose</b>	<b>Project Purpose Percent</b>
Resource Management	
Water Quality	



Working Landscapes	
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<b>County</b>
Placer

<b>Sub Region</b>
Central

**PROJECT CONTACT INFORMATION**

<b>Name</b>	Mr. Andy Fisher,
<b>Title</b>	Senior Planner
<b>Organization</b>	Placer County Department of Facility Services
<b>Primary Address</b>	11476 C Avenue, , Auburn, CA, 95603
<b>Primary Phone/Fax</b>	530-889-6819 <b>Ext.</b>
<b>Primary Email</b>	AFisher@placer.ca.gov

## PROJECT LOCATION INFORMATION

### Project Location

Address:	11476 'C' avenue, Hidden Falls Mt. Vernon Rd., , Auburn, CA, 95604
United States	
Water Agency:	Nevada Irrigation District
Latitude:	38.57'31
Longitude:	121.09'42"
Congressional District:	n/a
Senate:	n/a
Assembly:	n/a
Within City Limits:	No
City Name:	

ADDITIONAL INFORMATION

Grant Application Type

**Grant Application Type:**  
**Category One Site Improvement**

**Grant Application Type:**  
**Category One Site Improvement**

<b>PROJECT OTHER CONTACTS INFORMATION</b>
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<b>Other Grant Project Contacts</b>
Name: Mr. Andy Fisher, Project Role: Day-to-Day Responsibility Phone: 5308896819 Phone Ext: E-mail: afisher@placer.ca.gov

## UPLOADS

The following pages contain the following uploads provided by the applicant:

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CEQA Documentation
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Detailed Budget Form
Regulatory Requirements or Permits
Regulatory Requirements or Permits

Regulatory Requirements or Permits
Regulatory Requirements or Permits
Regulatory Requirements or Permits
Restrictions/Agreements
Letters of Support
Letters of Support
Letters of Support
Letters of Support
Long Term Management Plan
Project Location Map
Parcel Map Showing County Assessors Parcel Number
Topographic Map
Photos of the Project Site
Land Tenure- Only for Site Improvement Projects
Land Tenure- Only for Site Improvement Projects
Site Plan - Only Site Improv. or Restoration Proj.



To preserve the integrity of the uploaded document, headers, footers and page numbers have not been added by the system.

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- You can move among the boxes by using your mouse or the "Tab" key.

2. When you have completed the form, print and sign at the bottom.

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## Appendix B1

### Full Application Checklist

Project Name: Hidden Falls Regional Park Agricultural and Public Use Improvements EGID#: \_\_\_\_\_

Applicant: Placer County Department of Facility Services

Please mark each box: check if item is included in the application; mark "N/A" if not applicable to the project. "N/A" identifications must be explained in the application. Please consult with SNC staff prior to submission if you have any questions about the applicability to your project of any items on the checklist. All applications must include a CD including an electronic file of each checklist item, if applicable. The naming convention for each electronic file is listed after each item on the checklist. (Electronic File Name = EFN: "naming convention". file extension choices)

Submission requirements for all Category One and Category Two Grant Applications

1. ☒ Completed Application Checklist (EFN: Checklist.pdf)
2. ☒ Table of Contents (EFN: TOC.doc or .docx)
3. ☒ Full Application Project Information Form (EFN: fapi.doc or .docx)
4. ☒ Authorization to Apply or Resolution (EFN: authorization.doc or .docx)
5. ☐ Narrative Descriptions - Submit a single document (maximum 10 pages, Arial 12 pt font, 1 inch margins) that includes each of the following narrative descriptions (EFN: Narrative.doc or .docx)
  - a. ☐ Detailed Project Description
    - ☐ Project Description including Goals/Results, Scope of Work, Location, Purpose, etc.
    - ☐ Project Summary
    - ☐ Environmental Setting
  - b. ☐ Workplan and Schedule
  - c. ☐ Restrictions, Technical/Environmental Documents and Agreements – Category One projects only
  - d. ☐ Organizational Capacity
  - e. ☐ Cooperation and Community Support
  - f. ☐ Long Term Management and Sustainability
  - g. ☐ Performance Measures
  - h. ☐ Budget

6. Supplemental and Supporting documents

- a. ☐ CEQA/NEPA Compliance Form (EFN: CEQAform.doc or .docx)
  - ☐ California Environmental Quality Act (CEQA) documentation (EFN: CEQA.pdf)
  - ☐ National Environmental Policy Act (NEPA) documentation (EFN: NEPA.pdf)
- b. ☐ Detailed Budget Form (EFN: Budget.xls, .xlsx)
- c. Restrictions, Technical/Environmental Documents and Agreements, as applicable – Category One projects only
  - ☐ Restrictions / Agreements (EFN: RestAgree.pdf)
  - ☐ Regulatory Requirements / Permits (EFN: RegPermit.pdf)
- d. Cooperation and Community Support
  - ☐ Letters of Support (EFN: LOS.doc, .docx or .pdf)
- e. Long-Term Management and Sustainability
  - ☐ Long-Term Management Plan (EFN: LTMP.pdf)
- f. Maps and Photos
  - ☐ Project Location Map (EFN: LocMap.pdf)
  - ☐ Parcel Map showing County Assessor's Parcel Number(s) (EFN: ParcelMap.pdf)
  - ☐ Topographic Map (EFN: Topo.pdf)
  - ☐ Photos of the Project Site (10 maximum) (EFN: Photo.jpg, .gif)
- g. Additional submission requirements for Conservation Easement Acquisition applications only
  - ☐ Acquisition Schedule (EFN: acqSched.doc,.docx,.rtf,.pdf)
  - ☐ Willing Seller Letter (EFN: WillSell.pdf)
  - ☐ Real Estate Appraisal (EFN: Appraisal.pdf)
  - ☐ Conservation Easement Language (EFN: CE.pdf)
  - ☐ Third Party Transfer Acknowledgment Letter (if applicable) (EFN: Transfer.pdf)
- h. Additional submission requirements for Site Improvement/Restoration Project applications only
  - ☐ Land Tenure Documents – attach only if documentation was not included with Pre-application (EFN: Tenure.pdf)
  - ☐ Site Plan (EFN: SitePlan.pdf)
  - ☐ Leases or Agreements (EFN: LeaseAgmnt.pdf)

I certify that the information contained in the Application, including required attachments, is accurate.

Signed \_\_\_\_\_  
(Authorized Representative)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Title (print or type)

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Appendix B-1

**1. FULL APPLICATION CHECKLIST**

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Full Application Checklist



# Placer County Hidden Falls Regional Park Agricultural and Public Use Improvements



PLACER LEGACY  
Preserving the Past  
Inspiring the Future

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### 3. PROJECT INFORMATION FORM



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Project Information Form

#### 4. RESOLUTION AUTHORIZING APPLICATION



## 5. NARRATIVE DESCRIPTIONS

**a. Detailed Project Description:** Placer County seeks funding to support the goals of long term ranching, habitat protection, and public access at Hidden Falls Regional Park (Hidden Falls). This proposal includes the most critical infrastructure improvements needed to support these goals including repair of the existing stock pond and irrigation canal to correct uncontrolled seepage and capacity loss from sediment, treatment of one mile of eroding ranch roads, repair of perimeter fencing, and construction of watering troughs to deter grazing animals (including public equestrians using the trail system) from stream courses. The Work Plan and Schedule section describes the individual tasks and deliverables in detail.

Hidden Falls is a 1,200 acre open space preserve and passive park owned by Placer County and located between the communities of Auburn and Lincoln. In 2006, the easterly 220 acres of Hidden Falls were opened to the public with seven miles of trails and amenities. Since its opening, Hidden Falls has increased in popularity, drawing visitors from as far away as the Bay Area. On November 20, 2011, the San Francisco Chronicle published an editorial directing Bay Area residents to Hidden Falls and praising the friendly nature of the diverse Park users, stating, *“Bikers and equestrians, who’s encounters can resemble something akin to ‘Mountain Lion vs. Bambi’, have made peace at Hidden Falls Regional Park near Interstate 80 in the Auburn Foothills. Maybe there’s hope for the whole human race, after all”*.

The remaining 980 acres are under development and the combined 1,200 acre Park is expected to be fully open to the public in 2013 with 30 miles of trails, bridges, picnic areas, interpretive signage, and parking facilities at the easterly end of the property. Placer County and its grant funding partners, including Sierra Nevada Conservancy, have invested \$10 Million into the purchase and development of Hidden Falls Regional Park in order to protect its natural resources and support public access and enjoyment. The Agricultural and Public Access Improvements Project has identified the most critical deficiencies on the Hidden Falls property that need rehabilitation in order to support long term ranching, aid in wildfire risk reduction through vegetation grazing, and reduce sediment into the Coon Creek watershed.

Hidden Falls is made up of two historic cattle ranches and currently supports 75 to 100 head of cattle under a lease to the former owners, the Spears Family (See lease agreement attached under Section 6.c). Fencing and infrastructure maintenance related to ranching operations is performed by the Spears Family to a level that supports their current operations. In December 2013, the current grazing lease will expire (electronic copy of current grazing lease attached), and Placer County will implement a long term management plan that will continue ranching and grazing for the purpose of vegetation management, habitat health, and agricultural preservation. The long term plan will support continued grazing with integrated public use via the 30 mile trail system. An initial draft of this long term plan, titled “Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan, was created in 2007 by the Placer County Resource Conservation District and UC Cooperative Extension. A copy of the

plan is included electronically as “LTMP.pdf”. The Plan is intended to adapt as more experience is gained in the effective use of grazing management. The model of integrated grazing with public trails has proven viable in other open space parks including those of the respected East Bay Regional Open Space District. In order to achieve the goals of vegetation management and agricultural preservation at Hidden Falls, it is expected that Placer County will contract with a rancher (or multiple ranchers) who is experienced in habitat focused vegetation management through grazing as well as multi-species animal husbandry. Through the generous support of SNC, over 100 acres of shaded fuel breaks have already been established at Hidden Falls. Grazing will be a key tool in effective maintenance of these shaded fuel breaks.

Placer County supports public/private partnerships at Hidden Falls. To date, REI, Inc has made use of Hidden Falls for leading classes such as hiking and GPS guidance. In return, REI has organized numerous volunteer events that have aided in the development of the Park. Likewise, Hidden Falls will offer valuable partnerships with ranchers to support the local agricultural economy and provide management benefits to the Hidden Falls property.

**a(1). Environmental Setting:** The 20 parcels making up the 1,200 acre Hidden Falls Regional Park are located in rural western Placer County between the communities of Lincoln and Auburn and are zoned 50 acre minimum farm land. Hidden Falls was purchased by Placer County as part of the Placer Legacy Open Space and Agricultural Preservation Program (Placer Legacy). Placer Legacy was adopted by the Placer County Board of Supervisors in 2000 to implement the Open Space Element of the Placer County General Plan. The acquisition and development of Hidden Falls directly achieves the natural resource protection and public trail goals of the General Plan. The agricultural goals of Placer Legacy will be ensured by Hidden Falls’ conservation status that eliminates the possibility of future subdividing which will leave the entire 1,200 acres available as contiguous working rangeland.

Due to the unfragmented stands of oak woodlands, rangelands, and annual grasslands along with undeveloped sections of Coon Creek and Bear River, this area of the Bear-Yuba foothills has been successfully identified for its conservation and public access benefits. With the recent acquisition of the 1,773 acre Harvego Bear River Preserve to the north and east of Hidden Falls, the way is nearly cleared for a 45-mile interconnected public trail system that will join the Coon Creek and Bear River watersheds on over 4,000 acres of permanently protected range lands.

During environmental review, a comprehensive archaeological survey was made of the entire 1,200 acre property. The history of Hidden Falls includes ranching from the time of the Emigrant Trail in the mid 1800’s. The Coon Creek corridor also provided a yearly migration route for local Maidu’s between the areas of present day Sheridan and Meadow Vista. Mortars along Coon Creek point out the prime Native American encampment locations and will provide rich interpretive opportunities for park users. The comprehensive archaeological surveys will ensure this Project is able to avoid sensitive artifacts.

## b. Work Plan and Schedule

This project proposes the following five specific tasks and deliverables. Following the task description is a detailed schedule including reporting:

- 1) Rehabilitate Stock Pond – Attached photos show the main stock watering pond on the western end of the property. The pond is approximately 0.6 acres. The attached topo map depicts the location. The pond is a source of water for grazing animals and supports ducks, fish, frogs, aquatic plants, and other wildlife. Due to siltation and rodents, the pond is leaking and has lost capacity. A review by the Placer County Resource Conservation District indicates that the entire pond would need to be dredged to a depth that would be optimal for plant and aquatic animal life and lined with an impermeable membrane such as clay. An engineering study would determine what structural improvements, if any, would need to be performed on the dam for long term stability and protection of downstream property.

Item 1 Deliverables
<ul style="list-style-type: none"><li>• Detailed design drawings for rehabilitation of stock pond by engineer or other suitable expert</li><li>• Rehabilitated 0.6 acre stock pond at western end of property, including dredging and repair of leaks.</li></ul>

- 2) On-site Canal Encasement - A 1,200 foot spur of the Whiskey Diggins irrigation canal supplies water to the pond. Attached photos show damage caused by cattle denuding the uncontrolled wet areas below the canal where rodents and trampling by farm animals has caused breaching and sediment. This Project would encase the 1,200 foot canal section in piping with outlets for controlled flow.

Item 2 Deliverables
<ul style="list-style-type: none"><li>• Detailed design drawings for encasement of irrigation canal by engineer or other suitable expert</li><li>• Encase 1,200 lineal feet of existing irrigation canal</li></ul>

- 3) Ranch Road Abandonment / BMP's – With funding from the Natural Resources Agency River Parkways Grant Program (Prop 50) the County has realigned approximately 3 miles of old ranch roads that were rutted and eroded due to steep alignment and poor drainage. The newly graded roads are sloped for long term stability without erosion. However, funding is needed to properly abandon the remnants of old roads that will no longer be used. The abandoned roads will need to be re-contoured so that storm water sheet flows over the area without concentrating in the existing ruts and channels, and the areas will be revegetated. In addition, high use sections of the newly graded roads will receive a layer of all-weather base rock for a durable wearing surface to control erosion and dust. The ranch roads form the backbone of the public trail system as well as serving maintenance and emergency vehicle access needs (ambulance and fire trucks).

Item 3 Deliverables
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- |   |
|---|
| <ul style="list-style-type: none"><li>• Place all weather base rock on minimum ½ mile of new ranch road</li><li>• Re-contour and Re-vegetate ½ mile of abandoned ranch road</li></ul> |
|---|

- 4) Construct 3 Watering Troughs – The Hidden Falls Property contains three miles of Coon Creek and Deadman Creek. Grazing animals and horses enter Coon Creek for watering, and this causes siltation. We propose to construct three masonry watering troughs along Coon Creek with solar pumps (or similar mechanism) that would continuously draw water from Coon Creek into a small basin located outside of the riparian zone. Once open to the public, the location of these troughs would be provided to equestrians. Signage would be used to direct Park users to the troughs and discourage entry into the creek. During future grazing operations, it is expected that temporary fencing will be used to create high intensity, short term grazing paddocks for strategic vegetation control. These troughs could be located inside the paddocks eliminating the need for animal access to the creek.

Item 4 Deliverables
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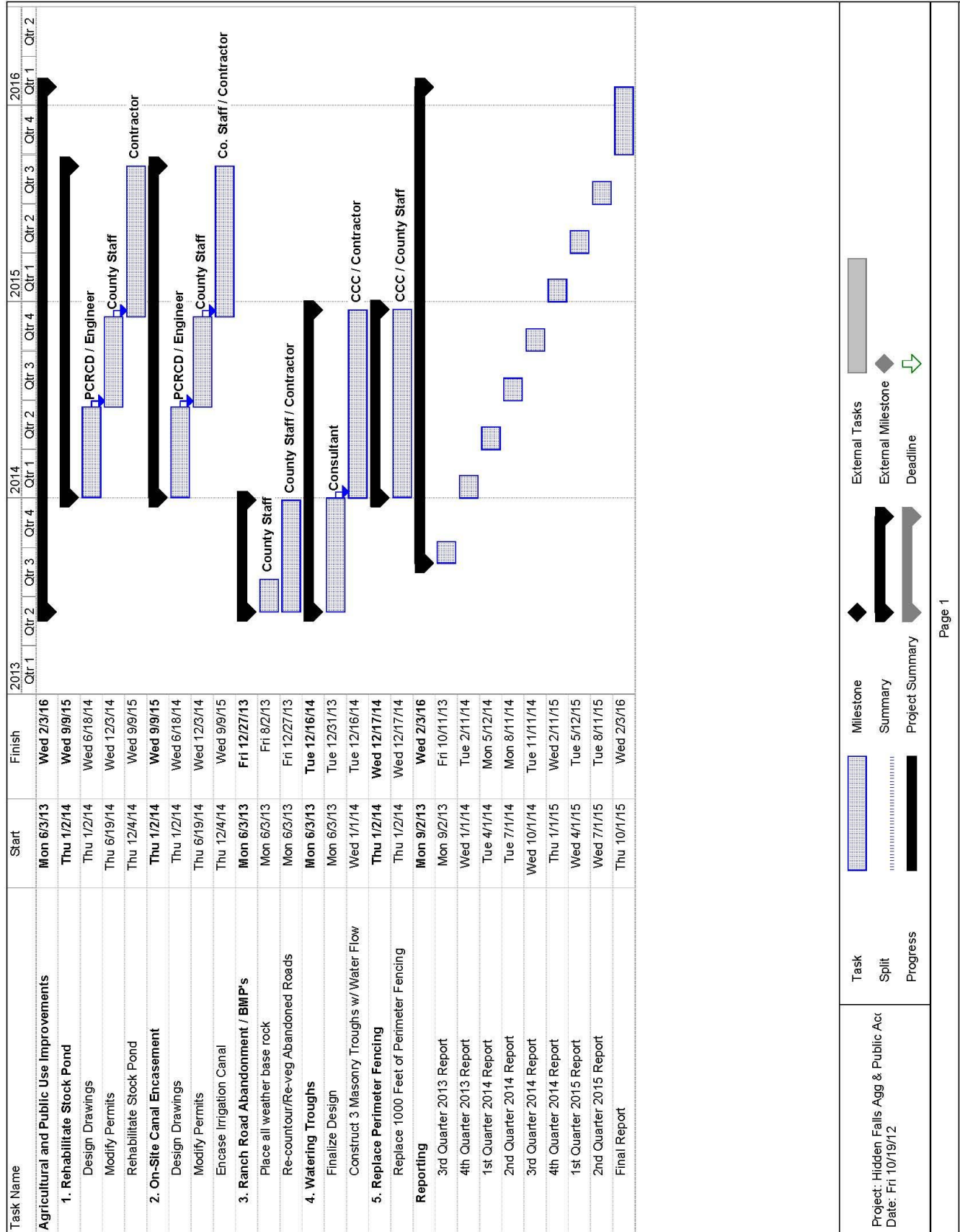
- |  |
|--|
| <ul style="list-style-type: none"><li>• Three masonry watering troughs spaced throughout the park with functioning water delivery systems.</li></ul> |
|--|

- 5) Replace Perimeter Fencing / Remove Existing Fencing – There is approximately 8 miles of perimeter fencing around the property. Most of the fence is in good repair. This grant would replace the worst sections of perimeter fencing. In the long term management plan, it is anticipated that most of the permanent fencing will be along the property perimeter with most internal cross fencing consisting of moveable electric fencing to allow the greatest flexibility in moving animals and confining them to desired areas of vegetation management. This management will include maintenance grazing of the shaded fuel breaks that were constructed with SNC funding. It is expected that grazing contractors would provide the moveable internal fencing. As part of this item, the dilapidated remnants of cross fencing near the existing ranch house on the western end of the property would be removed.

Item 5 Deliverables
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- |  |
|--|
| <ul style="list-style-type: none"><li>• Minimum 1000 lineal feet of perimeter fencing replaced with stranded wire field fence.</li></ul> |
|--|

## Schedule





### **c. Restrictions, Technical/Environmental Documents and Agreements**

On January 28, 2010, the Placer County Planning Commission certified the Final Environmental Impact Report as complete for the development of Hidden Falls Regional Park. In addition to the completed CEQA document, the following permits, related to this Project, have been obtained for development work at Hidden Falls Regional Park. Electronic copies of these permits are included in the application CD. Hard Copies are available upon request.

- California Regional Water Quality Control Board, Central Valley Region, Clean Water Act §401 Technically Conditioned Water Quality Certification (WDID#5A31CR00305);
- California State Water Resources Control Board, Notice of Intent filed to comply with General Construction Permit (WDID#5S31C334946), information entered into SMARTS system, QSD/QPS assigned to monitor SWPPP.
- California Department of Fish and Game, Streambed Alteration Agreement Notification No. 1600-2011-0029-R2;
- Conditional Use Permit – “Hidden Falls Regional Park” (PCPA 20090391);
- County of Placer Grading Permit #: DGP-4851;
- U.S. Army Corps of Engineers, Sacramento District, Special Conditions for the Hidden Falls Regional Park Project, SPK-2009-01275.

Modifications to the U.S. Army Corps permit and Streambed Alteration Agreement may be needed for work on the stock pond. At the advice of SNC staff, given the size of the environmental documents and permits, copies are attached to this application in electronic format only. Hard copies are available upon request.

An Agreement, between the Spears Family and Placer County dated November 21, 2003, outlines the terms of grazing on the Hidden Falls Property by the Spears Family. The grazing Agreement expires December 2013. An electronic copy are attached under file name: “*RestAgree.pdf*”

### **d. Organizational Capacity**

Placer County Department of Facility Services employs a full time staff of Project Managers who work with the Placer County Procurement Services Division to contract for any necessary professional services and construction contracts according to the Public Contract Code.

In addition, the Parks Division of Facility Services has a Project Crew that is equipped with staff and equipment capable of performing all of the work proposed in this Project.

Placer County also has a contract relationship with the Placer County Resource Conservation District for technical assistance on all matters of irrigation, pond management, ranch, and vegetation management. The Department has access to California Conservation Corps crews and inmate crews of the California Department of Forestry and Fire Protection for use of their labor on projects such as this.

#### **e. Cooperation and Community Support**

Hidden Falls Regional Park has received a high and diverse level of community support since its inception as a key accomplishment of the Placer Legacy Program. Planning for the development of Hidden Falls involved the input of over 20 community groups including 11 Municipal Advisory Councils; Placer County parks Commission, Folsom Auburn Trail Riders Action Coalition, Meadow Vista Trails Association, Loomis Basin Horseman's Association, Sun City Lincoln Hills Hiking Club. Over 30 public meetings have been held to discuss the development and future of Hidden Falls. In each meeting, the community has given overwhelming support to the vision of Hidden Falls. There is no known opposition to Hidden Falls or this Project in particular.

Hidden Falls is an important implementation asset of the Placer County General Plan Open Space Element as a component of the Placer Legacy Program. Specific objectives of Placer Legacy that are fulfilled by Hidden Falls include: "Maintain a viable agricultural segment of the economy", and "...provide regional recreation facilities in the foothill region, supplementing the recreation opportunities provided on public lands to the east, and municipal park facilities in urbanized areas. South Placer residents would be served by one or more large regional parks (300 acres or greater) in a rural setting with a variety of passive recreation opportunities."

Support for Hidden Falls is evident through over \$4 Million in generous support from funding partners including the following:

- California Department of Parks and Recreation - Land and Water Conservation Fund (\$204,000)
- The California Resources Agency - Recreational Trails Program (\$93,500)
- The California Resources Agency – River Parkway Program (\$1,858,650)
- Sierra Nevada Conservancy – (\$646,207)
- Riparian & Riverine Habitat Grant Program - 2000 Park Bond Act (\$400,000)
- The California Resources Agency - Sierra Nevada-Cascade Grant Program (\$250,000).
- The Sierra Business Counsel facilitated a grant from the David and Lucile Packard Foundation's Conserving California Landscapes (\$500,000)
- REI Inc. (\$10,000)
- California Conservation Corps (\$380,000)

There is strong community interest and support for this project as shown by the letters of support, which are included in the Supporting Documents. Letters of support have been received from the Placer County Resource Conservation District, Folsom Auburn Trails Action Coalition (FATRAC), REI Inc., and Sun City Lincoln Hills Hiking Club.

#### **f. Long Term Maintenance and Sustainability**

Long Term Management will be the responsibility of the County Parks Division. The Parks Division has prepared a Maintenance Management Plan (MMP) for park maintenance. The MMP identifies the maintenance tasks, the time allotted to perform each task, the maintenance frequencies and the schedule for performing the work. The MMP ensures the level of service provided is adequate to keep Hidden Falls Regional Park well maintained.

The primary function of the Placer County Parks Division is the operation and management of active and passive parks, trails and open space areas. Currently, the Parks Division manages 47 parks with 835 acres, 79 miles of multi-purpose trails, and 1,046 acres of open space. There are 26 full time employees and varying numbers of extra help Parks workers and inmates. Hidden Falls has an existing base of faithful volunteer organizations who will also assist with ongoing maintenance.

Funding for ongoing maintenance and management of this project will come from the Parks Division's annual budget for maintenance of open space lands acquired pursuant to the Placer Legacy program.

Implementation of this project will reduce maintenance costs over time by stabilizing high maintenance roads and irrigation facilities. It is also expected that the improved infrastructure will lead to reduced contract costs for grazing and reduce water consumption.

In 2007, the "Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan" was prepared for Placer County by the Placer County Resource Conservation District and UC Cooperative Extension. This document is intended to be a living guide for the long term compliment of grazing and vegetation management at Hidden Falls. An electronic copy of the document is included in the application CD.

#### **g. Performance Measures**

This Project will **restore 2 acres of land** including eroded ranch roads, stock pond, and irrigation canal. This intensive and technical restoration of the pond, canal, and ranch roads will have a direct water quality benefit to 250 acres of surrounding watershed area as well as the remainder of the Coon Creek / Feather River Watershed downstream of the Project.

#### h. Budget

Placer County has a successful history of Project estimation and delivery. Staff has worked with the Placer County Resource Conservation District and reviewed invoices from recent construction activities at Hidden Falls to determine costs for the Agricultural and Public Access Improvement Project. The following table shows the project costs as well as County contributions. Funding by Placer County will be available through annual operating budgets. A Detailed Budget Form (Appendix 4B) is also included in the Supplemental and Supporting Documents section.

Item	Task	Qty.	Unit	Unit Price	Total Estimated Cost	SNC Funding	Placer County Funding
1	Rehabilitate Stock Pond	1	Lump Sum	\$ 85,000.00	\$ 85,000.00	\$ 85,000.00	\$ -
2	On-site Canal Encasement	1	Lump Sum	\$ 85,000.00	\$ 85,000.00	\$ 85,000.00	\$ -
3	Ranch Road Abandonment/BMP's	1	Lump Sum	\$ 115,000.00	\$ 115,000.00	\$ 95,000.00	\$ 20,000.00
4	Construct 3 Watering Troughs	3	Each	\$ 10,000.00	\$ 30,000.00	\$ 30,000.00	\$ -
5	Replace Perimeter Fencing	1000	Lineal Feet	\$ 25.00	\$ 25,000.00	\$ 25,000.00	\$ -
6	Directly Related Admin.	1	Lump Sum	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	
7	Administration	250	Hours	\$ 110.00	\$ 27,500.00	\$ -	\$ 27,500.00
8	Labor Overhead Costs	1000	Hours	\$ 35.00	\$ 35,000.00	\$ -	\$ 35,000.00
	Totals				\$ 407,500.00	\$ 325,000.00	\$ 82,500.00

## 6. SUPPLEMENTAL AND SUPPORTING DOCUMENTS

**a. CEQA/NEPA Compliance Form**









## **a(1). CEQA Notice of Determination**

## b. Detailed Budget Form

Appendix B4								
SIERRA NEVADA CONSERVANCY								
PROPOSITION 84 - DETAILED BUDGET FORM								
Project Name:		Hidden Falls Regional Park Agricultural and Public Use Improvements						
Applicant:		Placer County						
<b>SECTION ONE</b>								
<b>DIRECT COSTS</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>Year One (2013)</b>	<b>Year Two (2014)</b>	<b>Year Three (2015)</b>	<b>Year Four (2016)</b>	<b>Total</b>
Rehabilitate Stock Pond	1	\$85,000	85,000.00		\$7,500.00	\$77,500.00		\$85,000.00
On-site Canal Encasement	1	\$85,000	85,000.00		\$7,500.00	\$77,500.00		\$85,000.00
Ranch Road Abandonment/BMP's	1	\$95,000	95,000.00	\$45,000.00	\$50,000.00			\$95,000.00
Construct 3 Watering Troughs	3	\$7,500	22,500.00		\$7,500.00	\$15,000.00		\$22,500.00
Replace Perimeter Fencing / Remove Exi	1	\$32,500	32,500.00		\$10,000.00	\$22,500.00		\$32,500.00
			0.00					\$0.00
			0.00					\$0.00
<b>DIRECT COSTS SUBTOTAL:</b>			\$320,000.00	\$45,000.00	\$82,500.00	\$192,500.00	\$0.00	\$320,000.00
<b>SECTION TWO</b>								
<b>INDIRECT COSTS</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Total</b>
Monitoring			0.00					\$0.00
Project materials & supplies purchased			0.00					\$0.00
Publications, Printing, Public Relations			0.00					\$0.00
			0.00					\$0.00
<b>INDIRECT COSTS SUBTOTAL:</b>	0	\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>PROJECT TOTAL:</b>	0	\$0	\$320,000.00	\$45,000.00	\$82,500.00	\$192,500.00	\$0.00	\$320,000.00
<b>SECTION THREE</b>								
<b>Administrative Costs (Costs may not to exceed 15% of total Project Cost) :</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Total</b>
Directly related administrative costs	1	\$5,000	5,000.00	\$1,500.00	\$1,500.00	\$2,000.00		\$5,000.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
<b>ADMINISTRATIVE TOTAL:</b>	1	\$5,000	\$5,000.00	\$1,500.00	\$1,500.00	\$2,000.00	\$0.00	\$5,000.00
<b>SNC TOTAL GRANT REQUEST:</b>	1	\$5,000	\$325,000.00	\$46,500.00	\$84,000.00	\$194,500.00	\$0.00	\$325,000.00
<b>SECTION FOUR</b>								
<b>OTHER PROJECT CONTRIBUTIONS</b>				<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Total</b>
List other funding or in-kind contributors to project (i.e. Sierra Business Council, Department of Water Resources, etc.)								
Placer County Parks Budget (General Fund)	1	\$82,500	82,500.00	\$27,500.00	\$27,500.00	\$27,500.00		\$82,500.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
<b>Total Other Contributions:</b>	1	\$82,500	\$82,500.00	\$27,500.00	\$27,500.00	\$27,500.00	\$0.00	\$82,500.00

**NOTE:** The categories listed on this form are examples and may or may not be an expense related to the project. Rows may be added or deleted on the form as needed. Applicants should contact the SNC if questions arise.

\* Operating Costs should be allocated to the percentage that is applicable to the grant based on your cost allocation methodology and cannot exceed 15% of your total project costs.

**c. Restrictions, Technical/Environmental Documents and Agreements, as applicable**

- Restrictions/Agreements
  - A copy of the Spears Family existing grazing lease is attached electronically as “*RestAgree.pdf*”
- Regulatory Requirements / Permits – Electronic copies of the following permits are attached:
  - California Regional Water Quality Control Board, Central Valley Region, Clean Water Act §401 Technically Conditioned Water Quality Certification (WDID#5A31CR00305) – “*RegPermit\_RWQCB.pdf*”;
  - California State Water Resources Control Board, Notice of Intent filed to comply with General Construction Permit (WDID#5S31C334946), information entered into SMARTS system, QSD/QPS assigned to monitor SWPPP. Hard or electronic copy of information available upon request.
  - California Department of Fish and Game, Streambed Alteration Agreement Notification No. 1600-2011-0029-R2 – “*RegPermit\_DFG.pdf*”;
  - Conditional Use Permit – “Hidden Falls Regional Park” (PCPA 20090391) - “*RegPermit\_CUP.pdf*”;
  - County of Placer Grading Permit #: DGP-4851- “*RegPermit\_Grad.pdf*”;
  - U.S. Army Corps of Engineers, Sacramento District, Special Conditions for the Hidden Falls Regional Park Project, SPK-2009-01275. - “*RegPermit\_USACE.pdf*”;

#### **d. Cooperation and Community Support**

- Letters of support from the following people/organizations follow:
  - Placer County Resource Conservation District
  - Folsom Auburn Trail Riders Action Coalition
  - REI, Inc.
  - Sun City Lincoln Hills Hiking Club

## LOS – Placer County Resource Conservation District

## LOS – Folsom Auburn Trail Riders Action Coalition



LOS – REI, Inc.

## LOS – Sun City Lincoln Hills Hiking Club

**e. Long Term Management Plan**

- An electronic copy of the “*Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan*” dated January 1, 2007 is attached under file name: “LTMP.pdf”

## f. Maps and Photos

**Project Location Map**



## Parcel Map showing County Assessor's Parcel Numbers

Topographic Map



## Photos of the Project Site



Photos page 2

Photos page 3

## **h. Additional Submittal Requirements**

### **Land Tenure Documents**

- Spears Ranch Grant Deed – 7 pages
- Didion Ranch Grant Deed – 5 pages

*Spears Ranch Grant Deed p 1*

Spears Deed p 2

Spears Deed p 3

Spears Deed p 4

Spears Deed p 5



Spears Deed P 6

Spears Deed p 7

*Didion Ranch Grant Deed*

Didion Deed p 2

Didion Deed p 3

Didion Deed p 4

Didion Deed p 5

Site Plan



### Leases or Agreements

- A copy of the Spears Family existing grazing lease is attached electronically as “*RestAgree.pdf*”

Instructions for use of this form:

1. Scroll down and check the box indicating completion of requested information in the appropriate format.

- You can move among the boxes by using your mouse or the "Tab" key.

2. When you have completed the form, print and sign at the bottom.

**Please note:** Adobe® Reader® does not allow you to save your work. It is very important that you print out your form immediately after completing it.

## Appendix B2

### Project Information Form

**PROJECT NAME** (Limit name to 10 words or less)

**EGID#** 670

Hidden Falls Regional Park Agricultural and Public Use Improvements

**APPLICANT NAME** (Legal name, address, and zip code)

Placer County

11476 'C' Avenue

Auburn

CA

95603

**PROJECT DESCRIPTION:** Refer to Sec. IV, 5a in the GAP.

Has the project description been updated from the project description submitted with the Pre-Application form? (Choose One) ☐ SAME ☒ UPDATED

### CONSISTENCY WITH LOCAL GENERAL PLAN

Is this project consistent with the appropriate jurisdiction's (city/county) general plan?

☒ Yes ☐ No (If not, explain why not.)

### WILLIAMSON ACT STATUS (for conservation easement acquisition projects only)

Is the project enrolled in a Williamson Act contract with the local county? ☐ Yes ☒ No

If yes, what is the expiration date of the contract? \_\_\_\_\_

### FUNDING AND BUDGET INFORMATION

SNC Grant Request \$ 325,000

☐ Check if SNC is the sole funder of this project

### PERSON WITH FISCAL MANAGEMENT RESPONSIBILITY FOR GRANT CONTRACT/INVOICING

Name and title – type or print

Phone

Email Address

☒ Mr. James Durfee

(530) 889-4900

jdurfee@placer.ca.gov

☐ Ms. Director of Facility Services

### PERSON WITH DAY-TO-DAY RESPONSIBILITY FOR GRANT (Only include this information if different from pre-application submittal)

Name and title – type or print

Phone

Email Address

☒ Mr. Andy Fisher

(530) 889-6819

afisher@placer.ca.gov

☐ Ms. Sr. Planner

**COUNTY ADMINISTRATOR OR PLANNING DIRECTOR CONTACT INFORMATION** (*At least one entry with Email address is REQUIRED*)

Name: Michael Johnson, Planning Director

Phone Number: (530) 745-3197

Email Address: mjohnson@placer.ca.gov

Name:

Phone Number:

Email Address:

**NEAREST PUBLIC WATER AGENCY (OR AGENCIES) CONTACT INFORMATION** (*At least one entry with Email address is REQUIRED*)

Name: Nevada Irrigation District

Phone Number: (530) 273-6185

Email Address: admindepartment@nidwater.com

Name:

Phone Number:

Email Address:

**Please identify the appropriate project category below and provide the associated details** (*Choose One – should be the same as the category identified in the pre-application*)

☒ Category One Site Improvement

☐ Category Two Pre-Project Activities

☐ Category One Conservation Easement Acquisition

**☒ Site Improvement/Conservation Easement Acquisition**

Project Area: Rural Auburn/Lincoln

Total Acres: 1,200

SNC Portion (if different):

Total Miles (i.e. river or stream bank): 3

SNC Portion (if different):

**For Conservation Easement Acquisitions Only**

☐ Appraisal Included

☐ Will submit appraisal by

**Select one primary Site Improvement/Conservation Easement Acquisition deliverable**

☐ Stream Restoration/Protection

☐ Management Practices Changes

☐ Natural Resource Protection

☒ Infrastructure Development/Improvement

☐ Conservation Easement

**Does the applicant intend to transfer the easement to a third party?** ☐ Yes ☐ No

If yes, is the third party organization known? ☐ Yes ☐ No If yes, please attach a letter from this organization documenting their willingness to assume the long term management of the project.

**☐ Pre-Project Activities**

**Select one primary Pre-Project deliverable**

☐ Permit

☐ Condition Assessment

☐ CEQA/NEPA

☐ Biological Survey

☐ Appraisal

☐ Environmental Site

☐ Plan

Assessment



**Preservation of Ranch and Ag Lands**

**UPLOAD UNAVAILABLE OR INVALID**

*M:\2012-13 workroom\App Intake*

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Appendix B-1

**1. FULL APPLICATION CHECKLIST**

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Appendix B-1- page 2  
Full Application Checklist



# Placer County Hidden Falls Regional Park Agricultural and Public Use Improvements



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### 3. PROJECT INFORMATION FORM

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Appendix B-2- page 2  
Project Information Form

#### 4. RESOLUTION AUTHORIZING APPLICATION



## 5. NARRATIVE DESCRIPTIONS

**a. Detailed Project Description:** Placer County seeks funding to support the goals of long term ranching, habitat protection, and public access at Hidden Falls Regional Park (Hidden Falls). This proposal includes the most critical infrastructure improvements needed to support these goals including repair of the existing stock pond and irrigation canal to correct uncontrolled seepage and capacity loss from sediment, treatment of one mile of eroding ranch roads, repair of perimeter fencing, and construction of watering troughs to deter grazing animals (including public equestrians using the trail system) from stream courses. The Work Plan and Schedule section describes the individual tasks and deliverables in detail.

Hidden Falls is a 1,200 acre open space preserve and passive park owned by Placer County and located between the communities of Auburn and Lincoln. In 2006, the easterly 220 acres of Hidden Falls were opened to the public with seven miles of trails and amenities. Since its opening, Hidden Falls has increased in popularity, drawing visitors from as far away as the Bay Area. On November 20, 2011, the San Francisco Chronicle published an editorial directing Bay Area residents to Hidden Falls and praising the friendly nature of the diverse Park users, stating, *“Bikers and equestrians, who’s encounters can resemble something akin to ‘Mountain Lion vs. Bambi’, have made peace at Hidden Falls Regional Park near Interstate 80 in the Auburn Foothills. Maybe there’s hope for the whole human race, after all”*.

The remaining 980 acres are under development and the combined 1,200 acre Park is expected to be fully open to the public in 2013 with 30 miles of trails, bridges, picnic areas, interpretive signage, and parking facilities at the easterly end of the property. Placer County and its grant funding partners, including Sierra Nevada Conservancy, have invested \$10 Million into the purchase and development of Hidden Falls Regional Park in order to protect its natural resources and support public access and enjoyment. The Agricultural and Public Access Improvements Project has identified the most critical deficiencies on the Hidden Falls property that need rehabilitation in order to support long term ranching, aid in wildfire risk reduction through vegetation grazing, and reduce sediment into the Coon Creek watershed.

Hidden Falls is made up of two historic cattle ranches and currently supports 75 to 100 head of cattle under a lease to the former owners, the Spears Family (See lease agreement attached under Section 6.c). Fencing and infrastructure maintenance related to ranching operations is performed by the Spears Family to a level that supports their current operations. In December 2013, the current grazing lease will expire (electronic copy of current grazing lease attached), and Placer County will implement a long term management plan that will continue ranching and grazing for the purpose of vegetation management, habitat health, and agricultural preservation. The long term plan will support continued grazing with integrated public use via the 30 mile trail system. An initial draft of this long term plan, titled “Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan, was created in 2007 by the Placer County Resource Conservation District and UC Cooperative Extension. A copy of the

plan is included electronically as “LTMP.pdf”. The Plan is intended to adapt as more experience is gained in the effective use of grazing management. The model of integrated grazing with public trails has proven viable in other open space parks including those of the respected East Bay Regional Open Space District. In order to achieve the goals of vegetation management and agricultural preservation at Hidden Falls, it is expected that Placer County will contract with a rancher (or multiple ranchers) who is experienced in habitat focused vegetation management through grazing as well as multi-species animal husbandry. Through the generous support of SNC, over 100 acres of shaded fuel breaks have already been established at Hidden Falls. Grazing will be a key tool in effective maintenance of these shaded fuel breaks.

Placer County supports public/private partnerships at Hidden Falls. To date, REI, Inc has made use of Hidden Falls for leading classes such as hiking and GPS guidance. In return, REI has organized numerous volunteer events that have aided in the development of the Park. Likewise, Hidden Falls will offer valuable partnerships with ranchers to support the local agricultural economy and provide management benefits to the Hidden Falls property.

**a(1). Environmental Setting:** The 20 parcels making up the 1,200 acre Hidden Falls Regional Park are located in rural western Placer County between the communities of Lincoln and Auburn and are zoned 50 acre minimum farm land. Hidden Falls was purchased by Placer County as part of the Placer Legacy Open Space and Agricultural Preservation Program (Placer Legacy). Placer Legacy was adopted by the Placer County Board of Supervisors in 2000 to implement the Open Space Element of the Placer County General Plan. The acquisition and development of Hidden Falls directly achieves the natural resource protection and public trail goals of the General Plan. The agricultural goals of Placer Legacy will be ensured by Hidden Falls’ conservation status that eliminates the possibility of future subdividing which will leave the entire 1,200 acres available as contiguous working rangeland.

Due to the unfragmented stands of oak woodlands, rangelands, and annual grasslands along with undeveloped sections of Coon Creek and Bear River, this area of the Bear-Yuba foothills has been successfully identified for its conservation and public access benefits. With the recent acquisition of the 1,773 acre Harvego Bear River Preserve to the north and east of Hidden Falls, the way is nearly cleared for a 45-mile interconnected public trail system that will join the Coon Creek and Bear River watersheds on over 4,000 acres of permanently protected range lands.

During environmental review, a comprehensive archaeological survey was made of the entire 1,200 acre property. The history of Hidden Falls includes ranching from the time of the Emigrant Trail in the mid 1800’s. The Coon Creek corridor also provided a yearly migration route for local Maidu’s between the areas of present day Sheridan and Meadow Vista. Mortars along Coon Creek point out the prime Native American encampment locations and will provide rich interpretive opportunities for park users. The comprehensive archaeological surveys will ensure this Project is able to avoid sensitive artifacts.

## b. Work Plan and Schedule

This project proposes the following five specific tasks and deliverables. Following the task description is a detailed schedule including reporting:

- 1) Rehabilitate Stock Pond – Attached photos show the main stock watering pond on the western end of the property. The pond is approximately 0.6 acres. The attached topo map depicts the location. The pond is a source of water for grazing animals and supports ducks, fish, frogs, aquatic plants, and other wildlife. Due to siltation and rodents, the pond is leaking and has lost capacity. A review by the Placer County Resource Conservation District indicates that the entire pond would need to be dredged to a depth that would be optimal for plant and aquatic animal life and lined with an impermeable membrane such as clay. An engineering study would determine what structural improvements, if any, would need to be performed on the dam for long term stability and protection of downstream property.

Item 1 Deliverables
<ul style="list-style-type: none"><li>• Detailed design drawings for rehabilitation of stock pond by engineer or other suitable expert</li><li>• Rehabilitated 0.6 acre stock pond at western end of property, including dredging and repair of leaks.</li></ul>

- 2) On-site Canal Encasement - A 1,200 foot spur of the Whiskey Diggins irrigation canal supplies water to the pond. Attached photos show damage caused by cattle denuding the uncontrolled wet areas below the canal where rodents and trampling by farm animals has caused breaching and sediment. This Project would encase the 1,200 foot canal section in piping with outlets for controlled flow.

Item 2 Deliverables
<ul style="list-style-type: none"><li>• Detailed design drawings for encasement of irrigation canal by engineer or other suitable expert</li><li>• Encase 1,200 lineal feet of existing irrigation canal</li></ul>

- 3) Ranch Road Abandonment / BMP's – With funding from the Natural Resources Agency River Parkways Grant Program (Prop 50) the County has realigned approximately 3 miles of old ranch roads that were rutted and eroded due to steep alignment and poor drainage. The newly graded roads are sloped for long term stability without erosion. However, funding is needed to properly abandon the remnants of old roads that will no longer be used. The abandoned roads will need to be re-contoured so that storm water sheet flows over the area without concentrating in the existing ruts and channels, and the areas will be revegetated. In addition, high use sections of the newly graded roads will receive a layer of all-weather base rock for a durable wearing surface to control erosion and dust. The ranch roads form the backbone of the public trail system as well as serving maintenance and emergency vehicle access needs (ambulance and fire trucks).

Item 3 Deliverables
---------------------

- |   |
|---|
| <ul style="list-style-type: none"><li>• Place all weather base rock on minimum ½ mile of new ranch road</li><li>• Re-contour and Re-vegetate ½ mile of abandoned ranch road</li></ul> |
|---|

- 4) Construct 3 Watering Troughs – The Hidden Falls Property contains three miles of Coon Creek and Deadman Creek. Grazing animals and horses enter Coon Creek for watering, and this causes siltation. We propose to construct three masonry watering troughs along Coon Creek with solar pumps (or similar mechanism) that would continuously draw water from Coon Creek into a small basin located outside of the riparian zone. Once open to the public, the location of these troughs would be provided to equestrians. Signage would be used to direct Park users to the troughs and discourage entry into the creek. During future grazing operations, it is expected that temporary fencing will be used to create high intensity, short term grazing paddocks for strategic vegetation control. These troughs could be located inside the paddocks eliminating the need for animal access to the creek.

Item 4 Deliverables
---------------------

- |  |
|--|
| <ul style="list-style-type: none"><li>• Three masonry watering troughs spaced throughout the park with functioning water delivery systems.</li></ul> |
|--|

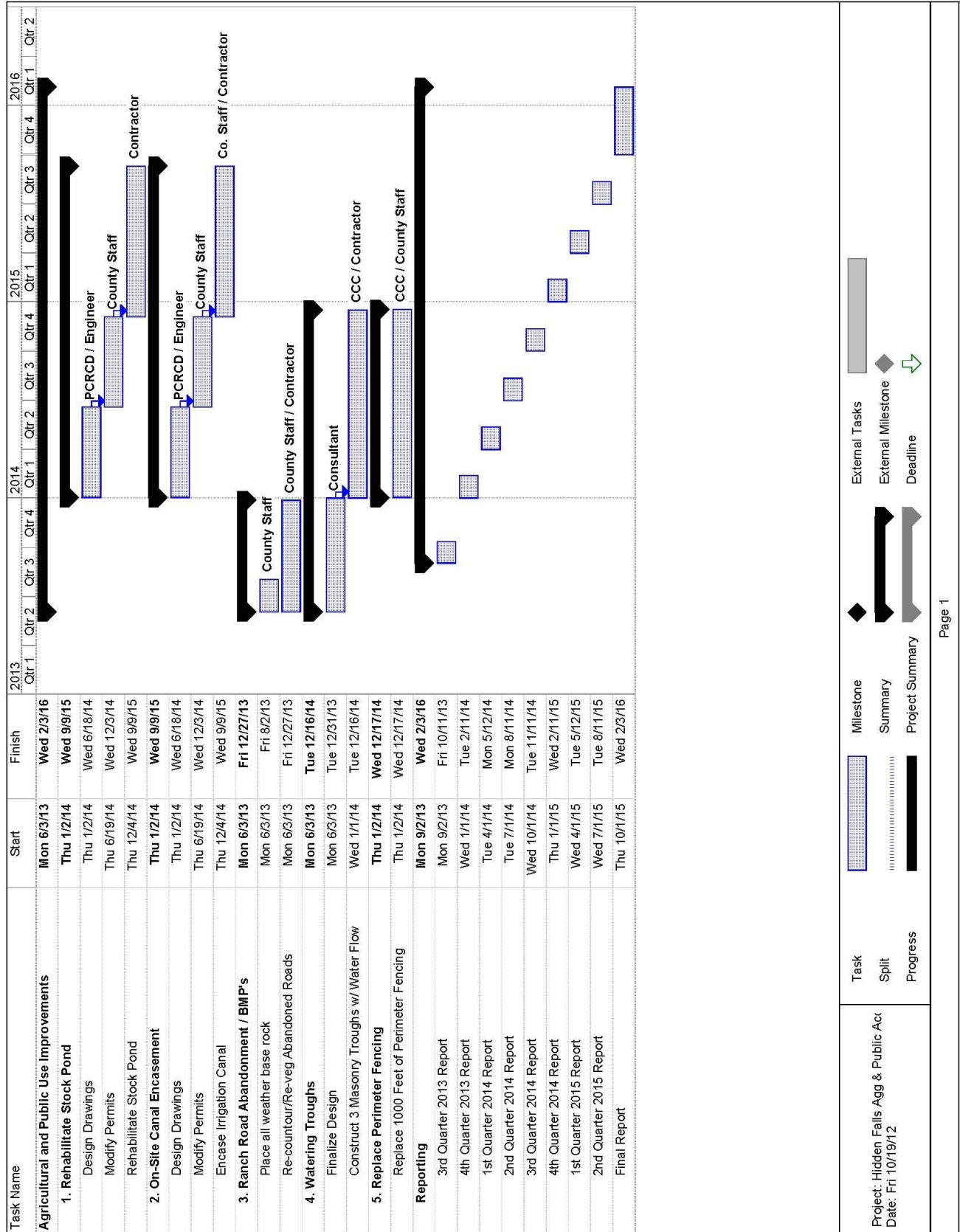
- 5) Replace Perimeter Fencing / Remove Existing Fencing – There is approximately 8 miles of perimeter fencing around the property. Most of the fence is in good repair. This grant would replace the worst sections of perimeter fencing. In the long term management plan, it is anticipated that most of the permanent fencing will be along the property perimeter with most internal cross fencing consisting of moveable electric fencing to allow the greatest flexibility in moving animals and confining them to desired areas of vegetation management. This management will include maintenance grazing of the shaded fuel breaks that were constructed with SNC funding. It is expected that grazing contractors would provide the moveable internal fencing. As part of this item, the dilapidated remnants of cross fencing near the existing ranch house on the western end of the property would be removed.

Item 5 Deliverables
---------------------

- |  |
|--|
| <ul style="list-style-type: none"><li>• Minimum 1000 lineal feet of perimeter fencing replaced with stranded wire field fence.</li></ul> |
|--|



## Schedule



### **c. Restrictions, Technical/Environmental Documents and Agreements**

On January 28, 2010, the Placer County Planning Commission certified the Final Environmental Impact Report as complete for the development of Hidden Falls Regional Park. In addition to the completed CEQA document, the following permits, related to this Project, have been obtained for development work at Hidden Falls Regional Park. Electronic copies of these permits are included in the application CD. Hard Copies are available upon request.

- California Regional Water Quality Control Board, Central Valley Region, Clean Water Act §401 Technically Conditioned Water Quality Certification (WDID#5A31CR00305);
- California State Water Resources Control Board, Notice of Intent filed to comply with General Construction Permit (WDID#5S31C334946), information entered into SMARTS system, QSD/QPS assigned to monitor SWPPP.
- California Department of Fish and Game, Streambed Alteration Agreement Notification No. 1600-2011-0029-R2;
- Conditional Use Permit – “Hidden Falls Regional Park” (PCPA 20090391);
- County of Placer Grading Permit #: DGP-4851;
- U.S. Army Corps of Engineers, Sacramento District, Special Conditions for the Hidden Falls Regional Park Project, SPK-2009-01275.

Modifications to the U.S. Army Corps permit and Streambed Alteration Agreement may be needed for work on the stock pond. At the advice of SNC staff, given the size of the environmental documents and permits, copies are attached to this application in electronic format only. Hard copies are available upon request.

An Agreement, between the Spears Family and Placer County dated November 21, 2003, outlines the terms of grazing on the Hidden Falls Property by the Spears Family. The grazing Agreement expires December 2013. An electronic copy are attached under file name: “*RestAgree.pdf*”

### **d. Organizational Capacity**

Placer County Department of Facility Services employs a full time staff of Project Managers who work with the Placer County Procurement Services Division to contract for any necessary professional services and construction contracts according to the Public Contract Code.

In addition, the Parks Division of Facility Services has a Project Crew that is equipped with staff and equipment capable of performing all of the work proposed in this Project.

Placer County also has a contract relationship with the Placer County Resource Conservation District for technical assistance on all matters of irrigation, pond management, ranch, and vegetation management. The Department has access to California Conservation Corps crews and inmate crews of the California Department of Forestry and Fire Protection for use of their labor on projects such as this.

#### **e. Cooperation and Community Support**

Hidden Falls Regional Park has received a high and diverse level of community support since its inception as a key accomplishment of the Placer Legacy Program. Planning for the development of Hidden Falls involved the input of over 20 community groups including 11 Municipal Advisory Councils; Placer County parks Commission, Folsom Auburn Trail Riders Action Coalition, Meadow Vista Trails Association, Loomis Basin Horseman's Association, Sun City Lincoln Hills Hiking Club. Over 30 public meetings have been held to discuss the development and future of Hidden Falls. In each meeting, the community has given overwhelming support to the vision of Hidden Falls. There is no known opposition to Hidden Falls or this Project in particular.

Hidden Falls is an important implementation asset of the Placer County General Plan Open Space Element as a component of the Placer Legacy Program. Specific objectives of Placer Legacy that are fulfilled by Hidden Falls include: "Maintain a viable agricultural segment of the economy", and "...provide regional recreation facilities in the foothill region, supplementing the recreation opportunities provided on public lands to the east, and municipal park facilities in urbanized areas. South Placer residents would be served by one or more large regional parks (300 acres or greater) in a rural setting with a variety of passive recreation opportunities."

Support for Hidden Falls is evident through over \$4 Million in generous support from funding partners including the following:

- California Department of Parks and Recreation - Land and Water Conservation Fund (\$204,000)
- The California Resources Agency - Recreational Trails Program (\$93,500)
- The California Resources Agency – River Parkway Program (\$1,858,650)
- Sierra Nevada Conservancy – (\$646,207)
- Riparian & Riverine Habitat Grant Program - 2000 Park Bond Act (\$400,000)
- The California Resources Agency - Sierra Nevada-Cascade Grant Program (\$250,000).
- The Sierra Business Counsel facilitated a grant from the David and Lucile Packard Foundation's Conserving California Landscapes (\$500,000)
- REI Inc. (\$10,000)
- California Conservation Corps (\$380,000)

There is strong community interest and support for this project as shown by the letters of support, which are included in the Supporting Documents. Letters of support have been received from the Placer County Resource Conservation District, Folsom Auburn Trails Action Coalition (FATRAC), REI Inc., and Sun City Lincoln Hills Hiking Club.

#### **f. Long Term Maintenance and Sustainability**

Long Term Management will be the responsibility of the County Parks Division. The Parks Division has prepared a Maintenance Management Plan (MMP) for park maintenance. The MMP identifies the maintenance tasks, the time allotted to perform each task, the maintenance frequencies and the schedule for performing the work. The MMP ensures the level of service provided is adequate to keep Hidden Falls Regional Park well maintained.

The primary function of the Placer County Parks Division is the operation and management of active and passive parks, trails and open space areas. Currently, the Parks Division manages 47 parks with 835 acres, 79 miles of multi-purpose trails, and 1,046 acres of open space. There are 26 full time employees and varying numbers of extra help Parks workers and inmates. Hidden Falls has an existing base of faithful volunteer organizations who will also assist with ongoing maintenance.

Funding for ongoing maintenance and management of this project will come from the Parks Division's annual budget for maintenance of open space lands acquired pursuant to the Placer Legacy program.

Implementation of this project will reduce maintenance costs over time by stabilizing high maintenance roads and irrigation facilities. It is also expected that the improved infrastructure will lead to reduced contract costs for grazing and reduce water consumption.

In 2007, the "Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan" was prepared for Placer County by the Placer County Resource Conservation District and UC Cooperative Extension. This document is intended to be a living guide for the long term compliment of grazing and vegetation management at Hidden Falls. An electronic copy of the document is included in the application CD.

#### **g. Performance Measures**

This Project will **restore 2 acres of land** including eroded ranch roads, stock pond, and irrigation canal. This intensive and technical restoration of the pond, canal, and ranch roads will have a direct water quality benefit to 250 acres of surrounding watershed area as well as the remainder of the Coon Creek / Feather River Watershed downstream of the Project.

#### h. Budget

Placer County has a successful history of Project estimation and delivery. Staff has worked with the Placer County Resource Conservation District and reviewed invoices from recent construction activities at Hidden Falls to determine costs for the Agricultural and Public Access Improvement Project. The following table shows the project costs as well as County contributions. Funding by Placer County will be available through annual operating budgets. A Detailed Budget Form (Appendix 4B) is also included in the Supplemental and Supporting Documents section.

Item	Task	Qty.	Unit	Unit Price	Total Estimated Cost	SNC Funding	Placer County Funding
1	Rehabilitate Stock Pond	1	Lump Sum	\$ 85,000.00	\$ 85,000.00	\$ 85,000.00	\$ -
2	On-site Canal Encasement	1	Lump Sum	\$ 85,000.00	\$ 85,000.00	\$ 85,000.00	\$ -
3	Ranch Road Abandonment/BMP's	1	Lump Sum	\$ 115,000.00	\$ 115,000.00	\$ 95,000.00	\$ 20,000.00
4	Construct 3 Watering Troughs	3	Each	\$ 10,000.00	\$ 30,000.00	\$ 30,000.00	\$ -
5	Replace Perimeter Fencing	1000	Lineal Feet	\$ 25.00	\$ 25,000.00	\$ 25,000.00	\$ -
6	Directly Related Admin.	1	Lump Sum	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	
7	Administration	250	Hours	\$ 110.00	\$ 27,500.00	\$ -	\$ 27,500.00
8	Labor Overhead Costs	1000	Hours	\$ 35.00	\$ 35,000.00	\$ -	\$ 35,000.00
	Totals				\$ 407,500.00	\$ 325,000.00	\$ 82,500.00

## 6. SUPPLEMENTAL AND SUPPORTING DOCUMENTS

**a. CEQA/NEPA Compliance Form**









## **a(1). CEQA Notice of Determination**

## b. Detailed Budget Form

Appendix B4								
SIERRA NEVADA CONSERVANCY								
PROPOSITION 84 - DETAILED BUDGET FORM								
Project Name:		Hidden Falls Regional Park Agricultural and Public Use Improvements						
Applicant:		Placer County						
<b>SECTION ONE</b>								
<b>DIRECT COSTS</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>Year One (2013)</b>	<b>Year Two (2014)</b>	<b>Year Three (2015)</b>	<b>Year Four (2016)</b>	<b>Total</b>
Rehabilitate Stock Pond	1	\$85,000	85,000.00		\$7,500.00	\$77,500.00		\$85,000.00
On-site Canal Encasement	1	\$85,000	85,000.00		\$7,500.00	\$77,500.00		\$85,000.00
Ranch Road Abandonment/BMP's	1	\$95,000	95,000.00	\$45,000.00	\$50,000.00			\$95,000.00
Construct 3 Watering Troughs	3	\$7,500	22,500.00		\$7,500.00	\$15,000.00		\$22,500.00
Replace Perimeter Fencing / Remove Exi	1	\$32,500	32,500.00		\$10,000.00	\$22,500.00		\$32,500.00
			0.00					\$0.00
			0.00					\$0.00
<b>DIRECT COSTS SUBTOTAL:</b>			\$320,000.00	\$45,000.00	\$82,500.00	\$192,500.00	\$0.00	\$320,000.00
<b>SECTION TWO</b>								
<b>INDIRECT COSTS</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Total</b>
Monitoring			0.00					\$0.00
Project materials & supplies purchased			0.00					\$0.00
Publications, Printing, Public Relations			0.00					\$0.00
			0.00					\$0.00
<b>INDIRECT COSTS SUBTOTAL:</b>	0	\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>PROJECT TOTAL:</b>	0	\$0	\$320,000.00	\$45,000.00	\$82,500.00	\$192,500.00	\$0.00	\$320,000.00
<b>SECTION THREE</b>								
<b>Administrative Costs (Costs may not to exceed 15% of total Project Cost) :</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Total</b>
Directly related administrative costs	1	\$5,000	5,000.00	\$1,500.00	\$1,500.00	\$2,000.00		\$5,000.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
<b>ADMINISTRATIVE TOTAL:</b>	1	\$5,000	\$5,000.00	\$1,500.00	\$1,500.00	\$2,000.00	\$0.00	\$5,000.00
<b>SNC TOTAL GRANT REQUEST:</b>	1	\$5,000	\$325,000.00	\$46,500.00	\$84,000.00	\$194,500.00	\$0.00	\$325,000.00
<b>SECTION FOUR</b>								
<b>OTHER PROJECT CONTRIBUTIONS</b>				<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Total</b>
List other funding or in-kind contributors to project (i.e. Sierra Business Council, Department of Water Resources, etc.)								
Placer County Parks Budget (General Fund)	1	\$82,500	82,500.00	\$27,500.00	\$27,500.00	\$27,500.00		\$82,500.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
<b>Total Other Contributions:</b>	1	\$82,500	\$82,500.00	\$27,500.00	\$27,500.00	\$27,500.00	\$0.00	\$82,500.00

**NOTE:** The categories listed on this form are examples and may or may not be an expense related to the project. Rows may be added or deleted on the form as needed. Applicants should contact the SNC if questions arise.

\* Operating Costs should be allocated to the percentage that is applicable to the grant based on your cost allocation methodology and cannot exceed 15% of your total project costs.

**c. Restrictions, Technical/Environmental Documents and Agreements, as applicable**

- Restrictions/Agreements
  - A copy of the Spears Family existing grazing lease is attached electronically as “*RestAgree.pdf*”
- Regulatory Requirements / Permits – Electronic copies of the following permits are attached:
  - California Regional Water Quality Control Board, Central Valley Region, Clean Water Act §401 Technically Conditioned Water Quality Certification (WDID#5A31CR00305) – “*RegPermit\_RWQCB.pdf*”;
  - California State Water Resources Control Board, Notice of Intent filed to comply with General Construction Permit (WDID#5S31C334946), information entered into SMARTS system, QSD/QPS assigned to monitor SWPPP. Hard or electronic copy of information available upon request.
  - California Department of Fish and Game, Streambed Alteration Agreement Notification No. 1600-2011-0029-R2 – “*RegPermit\_DFG.pdf*”;
  - Conditional Use Permit – “Hidden Falls Regional Park” (PCPA 20090391) - “*RegPermit\_CUP.pdf*”;
  - County of Placer Grading Permit #: DGP-4851- “*RegPermit\_Grad.pdf*”;
  - U.S. Army Corps of Engineers, Sacramento District, Special Conditions for the Hidden Falls Regional Park Project, SPK-2009-01275. - “*RegPermit\_USACE.pdf*”;

#### **d. Cooperation and Community Support**

- Letters of support from the following people/organizations follow:
  - Placer County Resource Conservation District
  - Folsom Auburn Trail Riders Action Coalition
  - REI, Inc.
  - Sun City Lincoln Hills Hiking Club

## LOS – Placer County Resource Conservation District



## LOS – Folsom Auburn Trail Riders Action Coalition

LOS – REI, Inc.

## LOS – Sun City Lincoln Hills Hiking Club

**e. Long Term Management Plan**

- An electronic copy of the “*Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan*” dated January 1, 2007 is attached under file name: “LTMP.pdf”

## f. Maps and Photos

**Project Location Map**



## Parcel Map showing County Assessor's Parcel Numbers

Topographic Map





## Photos of the Project Site

Photos page 2

Photos page 3

## **h. Additional Submittal Requirements**

### **Land Tenure Documents**

- Spears Ranch Grant Deed – 7 pages
- Didion Ranch Grant Deed – 5 pages

*Spears Ranch Grant Deed p 1*

Spears Deed p 2

Spears Deed p 3

Spears Deed p 4



Spears Deed p 5

Spears Deed P 6

Spears Deed p 7

*Didion Ranch Grant Deed*

Didion Deed p 2

Didion Deed p 3

Didion Deed p 4

Didion Deed p 5



Site Plan

### Leases or Agreements

- A copy of the Spears Family existing grazing lease is attached electronically as “*RestAgree.pdf*”

# Appendix B4

## SIERRA NEVADA CONSERVANCY

### PROPOSITION 84 - DETAILED BUDGET FORM

**Project Name: Hidden Falls Regional Park Agricultural and Public Use Improvements**

**Applicant: Placer County**

SECTION ONE				Project Cost Breakdown				
DIRECT COSTS	Units	Unit Cost	Total Cost	Year One (2013)	Year Two (2014)	Year Three (2015)	Year Four (2016)	Total
Rehabilitate Stock Pond	1	\$85,000	85,000.00		\$7,500.00	\$77,500.00		\$85,000.00
On-site Canal Encasement	1	\$85,000	85,000.00		\$7,500.00	\$77,500.00		\$85,000.00
Ranch Road Abandonment/BMP's	1	\$95,000	95,000.00	\$45,000.00	\$50,000.00			\$95,000.00
Construct 3 Watering Troughs	3	\$7,500	22,500.00	\$7,500.00	\$15,000.00			\$22,500.00
Replace Perimeter Fencing / Remove Existing	1	\$32,500	32,500.00		\$22,500.00	\$10,000.00		\$32,500.00
			0.00					\$0.00
			0.00					\$0.00
<b>DIRECT COSTS SUBTOTAL:</b>			\$320,000.00	\$52,500.00	\$102,500.00	\$165,000.00	\$0.00	\$320,000.00

SECTION TWO				Project Cost Breakdown				
INDIRECT COSTS	Units	Unit Cost	Total Cost	Year One	Year Two	Year Three	Year Four	Total
Monitoring			0.00					\$0.00
Project materials & supplies purchased			0.00					\$0.00
Publications, Printing, Public Relations			0.00					\$0.00
			0.00					\$0.00
<b>INDIRECT COSTS SUBTOTAL:</b>	0	\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>PROJECT TOTAL:</b>	0	\$0	\$320,000.00	\$52,500.00	\$102,500.00	\$165,000.00	\$0.00	\$320,000.00

SECTION THREE				Project Cost Breakdown				
Administrative Costs (Costs may not to exceed 15% of total Project Cost) :	Units	Unit Cost	Total Cost	Year One	Year Two	Year Three	Year Four	Total
Directly related administrative costs	1	\$5,000	5,000.00	\$1,500.00	\$1,500.00	\$2,000.00		\$5,000.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
<b>ADMINISTRATIVE TOTAL:</b>	1	\$5,000	\$5,000.00	\$1,500.00	\$2,000.00	\$1,500.00	\$0.00	\$5,000.00
<b>SNC TOTAL GRANT REQUEST:</b>	1	\$5,000	\$325,000.00	\$54,000.00	\$104,500.00	\$166,500.00	\$0.00	\$325,000.00

SECTION FOUR				Years Fund Received				
OTHER PROJECT CONTRIBUTIONS				Year One	Year Two	Year Three	Year Four	Total
List other funding or in-kind contributors to project (i.e. Sierra Business Council, Department of Water Resources, etc.)								
Placer County Parks Budget (General Fund)	1	\$82,500	82,500.00	\$27,500.00	\$27,500.00	\$27,500.00		\$82,500.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
			0.00					\$0.00
<b>Total Other Contributions:</b>	1	\$82,500	\$82,500.00	\$27,500.00	\$27,500.00	\$27,500.00	\$0.00	\$82,500.00

**NOTE:** The categories listed on this form are examples and may or may not be an expense related to the project. Rows may be added or deleted on the form as needed. Applicants should contact the SNC if questions arise.

\* Operating Costs should be allocated to the percentage that is applicable to the grant based on your cost allocation methodology and cannot exceed 15% of your total project costs.

## AGREEMENT

This Agreement is dated as of November 21, 2003 (the "Agreement") between BRADLEY A. SPEARS and GAYLE L. SPEARS, husband and wife ("The Spears") and the COUNTY OF PLACER, a political subdivision of the State of California ("County")

## **RECITALS**

A. The addresses and telephone numbers of the parties are:

### **COUNTY:**

Mark Rideout, Property Manager  
Placer County, Department of Facility Services  
11476 C Avenue  
Auburn, CA 95603  
Telephone: (530) 886-4954  
FAX: (530) 889-6857

### **THE SPEARS:**

Bradley A. and Gayle L. Spears  
5350 Garden Bar Road  
Lincoln, CA 95648  
Telephone: (916) 645-9561  
FAX: (916) 434-0916

B. The Spears are the owners of that certain real property located in Placer County, California, comprised of approximately 40 acres as more particularly described on Exhibit A-2 attached hereto ("40 Acre Property").

C. The Spears and The Trust for Public Land ("TPL") have entered into an Option Agreement dated August 11, 2003 ("Option Agreement") for the purchase of the 40 Acre Property.

D. TPL and the County are negotiating to enter into a purchase agreement under which TPL would sell the 40 Acre Property and the 921 Acre Property described on Exhibit A-1 attached hereto ("921 Acre Property") (collectively, the "Option Property")

to the County. The date that this TPL / County agreement closes escrow shall be used herein as the "Acquisition Date."

E. In the event that TPL acquires the 40 Acre Property from The Spears pursuant to the Option Agreement and sells the 40 Acre Property to the County, The Spears and the County desire to enter into an agreement setting forth certain matters relating to their respective rights and obligations with relation to the 921 Acre Property and the 40 Acre Property.

THE PARTIES AGREE AS FOLLOWS:

1. Condition Precedent to Obligations; Acknowledgement of Parties. The party's obligations under this Agreement are conditioned upon the County acquiring the 40 Acre Property and the 921 Acre Property from TPL, and become effective as of the Acquisition Date. Purchase of the 40 Acre Property by TPL pursuant to the Option Agreement, however, is conditioned upon the County and The Spears entering into an agreement in advance of said closing documenting The Spears and the County's agreement to be bound by these provisions in the event that the County acquires the 40 Acre Property and the 921 Acre Property from TPL.

2. Occupancy of 40 Acre Property.

- A. The Spears will have the right to remain on the 40 Acre Property as a residential tenant and to occupy the house and outbuildings on the 40 Acre Property for a period of one (1) year from the Acquisition Date or until the sooner termination hereof. Such tenancy shall be for lawful purposes only and in compliance with all applicable laws, rules and ordinances and shall be governed by California law applicable to residential tenancies.
- B. During the tenancy, The Spears agree to keep the 40 Acre Property in good, neat order and condition and to pay for any and all repairs or damage caused by the negligence or misuse of the 40 Acre Property by The Spears or its invitees. Additionally, The Spears shall be solely



responsible for landscaping, vandalism, and utility costs associated with said occupancy. County shall be responsible for all capital improvements and those services that the County is obligated under California law to provide to the 40 Acre Property and the buildings thereon.

- C. During the tenancy, the County may have reasonable access to the 40 Acre Property, and upon 24 hours notice, access to enter the residence and outbuildings.
- D. The Spears shall not make any additions, alterations or improvements to the Option Property without obtaining the prior written consent of County. All work with respect to any addition, alteration or improvement shall be done in a good and workmanlike manner and such work shall be diligently prosecuted to completion. Unless otherwise agreed upon in writing by the County, all improvements shall remain the property of the County upon termination of this occupancy.
- E. Prior to the first anniversary of the Acquisition Date, the Spears will vacate the 40 Acre Property and leave the 40 Acre Property in the condition required pursuant to this agreement. If the 40 Acre Property is not timely vacated or not vacated as required by this agreement, in addition to all rights and remedies allowed by law or in equity, The Spears and Bradley Spears personally will lose the right to graze cattle as described below in this agreement. In such event, neither The Spears nor Bradley Spears will have a further obligation to act as a caretaker on the 40 Acre Property.

3. Caretaker Responsibilities; Cattle Grazing.

- A. In exchange for The Spears' right to remain on the 40 Acre Property for up to one (1) year after the Acquisition Date, without paying any rent and with the right to graze cattle as described herein, Bradley Spears agrees to act as a caretaker for the Option Property and to perform the following functions for a period of ten (10) years from the Acquisition Date, unless

sooner terminated by mutual agreement after the first anniversary of the Acquisition Date or unilaterally by The Spears or Bradley Spears at any time, or for failure to perform agreed upon services.

- B. The caretaking duties shall include, without limitation, the obligation to:
- i. Maintain field fencing as it relates to cattle grazing (regularly walk fence lines, fix holes, and maintain gates, posts, and corners).
  - ii. Manage fuel wood, debris, and grasslands for fire prevention.
  - iii. Keep roadways, trails, and roadside areas clear of downed trees, and debris.
  - iv. Maintain Irrigation Canal described on Exhibit B.
  - v. Maintain ranch roads as needed for cattle grazing.
  - vi. Inspect and maintain the Nevada Irrigation District ("NID") water boxes that serve the Option Property.
  - vii. Promptly inform the County of cattle rotations, and other issues including but not limited to maintenance, trespass, vandalism, and fire.

C. For a period of 10 years following the Acquisition Date, unless sooner terminated by mutual agreement or otherwise as provided in this agreement, Bradley Spears will have the right to graze cattle on the 40 Acre Property and the 921 Acre Property. Cattle grazing will be conducted in accordance with the historical practices that The Spears have employed over the past 18 years. Said grazing shall be consistent with the conservation and management objectives of Placer County for the Option Property including public access and habitat conservation. The Spears and Placer County shall meet annually on the Option Property to review the property condition and grazing operation, and to document a work plan for the following year.

D. The caretaking responsibility and the right to graze cattle are personal to Brad Spears and shall terminate upon Brad's failure to continuously graze cattle on the Option Property or Brad's inability to perform either the cattle grazing operation or the caretaking responsibilities.



4. Fuel Wood. For management of fuel wood as described herein, The Spears may personally cut fallen trees and County pre-approved dead standing trees into firewood. The quantity of such firewood shall include up to three (3) cords annually for The Spears personal use, and up to ten (10) cords annually for commercial sale. All commercial firewood must be hauled by The Spears off the 40 Acre Property and 921 Acre Property for sale. No fallen or standing trees may be removed from the area within one hundred feet of the low flow bank of Coon Creek without express approval from the County.

5. Incidental Activities. During the term of The Spears' occupancy of the 40 Acre Property, and the Caretaker Responsibilities and Cattle Grazing, The Spears may conduct incidental recreational activities including hiking and fishing as subject to current and future County and State requirements.

6. Location of Improvements. The approximate locations for the new and existing improvements are shown on attached Exhibit B.

7. Access to 40 Acre Property. The parties agree that access to the 40 Acre Property will be provided across the 921 Acre Property on the existing road, in the location shown on attached Exhibit B. Neither party shall unreasonably interfere with access to the 40 Acre Property during the term of this Agreement.

8. Water and Irrigation. As owner of the Option Property, the County will enter into contracts with NID for their supply of water to the 40 Acre Property and the 921 Acre Property for the uses contemplated by this Agreement. The location of conveyance systems is described on attached Exhibit B. The Spears shall pay for all water utilized for their occupancy and grazing operations. In the event the County requires NID water for its contemplated uses, County shall pay a pro-rated share of the cost of water based upon usage. County shall have no obligation to provide additional conveyance systems; however, the County may do so at its sole discretion as long as adequate water service to the 40 Acre Property and the 921 Acre Property is maintained.

9. Condition of Property.



- A. Within one (1) month of the Acquisition Date, The Spears and County shall meet to confirm the existing condition of the Option Property and its structures.
- B. On the one year anniversary of the Acquisition Date or sooner termination hereof, The Spears agree to deliver the 40 Acre Property to the County. The house, and outbuildings shall be vacated, including removal of all personal property, trash, rubbish or any other unsightly or offensive materials within the house and outbuildings. Within two weeks of this one year anniversary (or sooner termination hereof), The Spears and County shall meet to inspect the 40 Acre Property and its structures, which shall be delivered, at The Spears' sole expense, in a clean, sanitary, and orderly condition, ordinary wear and tear excepted.
- C. Upon termination of the Caretaker and Grazing Responsibilities, The Spears agree to deliver the Option Property consistent with the terms of this agreement.
- D. On the Option Property during the term of this Agreement, The Spears promise not to remove or permit the removal of any vegetation, trees (other than dead and downed trees which may be removed by The Spears pursuant to this Agreement), soil or minerals, or hunt, or disturb or permit the disturbance of the existing contours and/or other natural features, or cause or permit any dumping or depositing of any materials, including, without limitation, garbage, "Hazardous Substances", as defined below, construction debris or solid or liquid wastes of any kind.
- E. The term "Hazardous Substance(s)" as used in this Agreement means any substance which is: (1) defined as a hazardous substance, hazardous material, hazardous waste, pollutant or contaminant under any Environmental Law; (2) a petroleum hydrocarbon, including crude oil or any fraction thereof; (3) hazardous, toxic, corrosive, flammable, explosive,

infectious, radioactive, carcinogenic, or reproductive toxicant; (4) regulated pursuant to any Environmental Law(s); (5) any pesticide regulated under state or federal law; or (6) any tank or container which contains or previously contained any Hazardous Substance(s). The term "Environmental Law(s)" means each and every federal, state, and local law, statute, ordinance, regulation, rule, judicial or administrative order or decree, permit, license, approval, authorization or similar requirement of each and every federal, state and local governmental agency or other governmental authority, pertaining to the protection of human health and safety or the environment, now and forever.

10. Insurance. Upon the Acquisition Date, The Spears shall acquire, and keep in force during the term of this Agreement, general liability insurance to protect against liability associated with The Spears' use of the use of the Option Property. Liability insurance coverage shall be not less than One Million (\$1,000,000.00) Dollars per person/accident for bodily injury and property damage. The policy providing such insurance shall name the County of Placer, its officers, employees and or agents as an additional insured and shall contain a standard cross-liability endorsement. This shall be stated on the face of the Certificate of Insurance in addition to the address of the Premises and the term of the policy. The Spears shall within 30 days of the expiration of any insurance policy procure a new policy or renew the same policy to provide insurance coverage for the entire term of this Lease Agreement. Current insurance policies shall be provided to the County throughout the term of this Agreement.

11. Indemnification.

a. The Spears shall indemnify and hold the County harmless from and defend County from any and all claims of liability for any injury, damage, or death to any persons or property occurring in, on or about the Option Property or any facility that may be a part of the Option Property, when such injury, damage, or death caused in part or whole by the intentional act or negligence of The Spears, either or both of The Spears individually, or The Spears' invitees. The Spears shall further indemnify and hold the County harmless from and against any and all claims arising from any breach or default in the performance of any obligation on The Spears' part or Bradley Spears' part to be



performed under the terms of this Agreement. In case any action or proceeding is brought against the County by reason of such claim, The Spears, upon notice from the County shall defend the same at The Spears' expense by counsel reasonably satisfactory to the County. The preceding three sentences shall constitute the complete scope of The Spears' indemnity obligations. The Spears shall not otherwise be liable for any damage, injury, or death occasioned by the negligence or intentional acts of the County (including the County's designated agents, employees, or invitees), or members of the general public.

b. Except for those claims for which The Spears will provide indemnity pursuant to Paragraph 11(a) herein, the County shall indemnify and hold The Spears harmless from and defend The Spears from any and all other claims of liability for any injury, damage, or death to any persons or property occurring in, on or about the Option Property or any facility that may be a part of the Option Property. In case any action or proceeding is brought against The Spears by reason of such claim, the County, upon notice from The Spears shall defend the same at the County's expense by counsel reasonably satisfactory to The Spears.

c. The indemnity obligations contained herein shall survive termination of this agreement.

12. Default. In the event The Spears or Bradley Spears fail to perform any of the terms, covenants and conditions of this Agreement, County at County's option may provide written notice thereof to The Spears. If such failure remains uncured for thirty (30) days after receipt of written notice, or such other time as the parties agree is reasonable under the circumstances, The Spears, or Bradley Spears as the case may be, shall be declared in default under this Agreement and the County may, at its sole option, terminate this agreement.

13. Assignment and Subletting. During the term of this Agreement, the rights and duties hereunder shall not be assigned, either in whole or in part, nor shall the Option Property or any portion thereof be sublet.

14. Notices. All notices required or permitted under this Agreement will be in writing and delivered to the parties by facsimile transmission, personally by hand, courier service or Express Mail, or by first class mail, postage prepaid, at the addresses stated in Recital A. All notices will be considered given: (a) if sent by mail, when deposited in the mail, first class postage prepaid, addressed to the party to be notified; (b) if delivered by hand, courier service or Express Mail, when delivered; or (c) if transmitted by facsimile, when transmitted. The parties may, by notice as provided above, designate a different address to which notice will be given.

15. Amendment. No amendment of this Agreement will be binding unless in writing and signed by the parties.

16. Waiver. No waiver of any term of this Agreement will be considered a waiver of any other term, whether or not similar, nor will any waiver be considered a continuing waiver. No waiver will be binding unless in writing and signed by the party making the waiver.

17. Severability. Each term of this Agreement is severable from any and all other terms of this Agreement. Should any term of this Agreement be for any reason unenforceable, the balance will still be of full force and effect.

18. Governing Law. The parties hereto acknowledge that this Agreement has been negotiated and entered into in the State of California. The parties hereto expressly agree that this Agreement shall be governed by, interpreted under and construed and enforced in accordance with laws of the State of California. Venue for any disputes shall be the Superior Court for the State of California, Placer County. The parties hereby waive any federal court removal rights that they may have.

19. Effective Date. This Agreement will be effective as of the date this Agreement is fully signed by the parties (the "Effective Date").

20. County Use. The County shall have the specific right to do whatever it desires on the 921 Acre Property following the Acquisition Date and the 40 Acre Property one (1)




year after the Acquisition Date, so long as its actions are not in conflict with other provisions of this Agreement. Such rights include, but are not limited to, Public Recreation and the County maintenance access, the construction of roads, trails, helipad, bridges, water systems, ponds, firebreaks, and wood-chipping operations and any other uses that the County may undertake and/or permit.

The remainder of this page is intentionally left blank.


IN WITNESS of the foregoing provisions the parties have signed this Agreement below:

COUNTY: PLACER COUNTY


By:   
Thomas Miller, Director  
Department of Facility Services

11/21/03  
Date

THE SPEARS: Bradley A. and Gayle L. Spears

By:   
Bradley A. Spears, individually and  
as husband to Gayle L. Spears

11-21-03  
Date

By:   
Gayle L. Spears

11/21/03  
Date

Approved As to Form:

By:   
County Counsel

11/21/03  
Date

## EXHIBIT A-1

### LEGAL DESCRIPTION of 921 Acre Property

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

THE SOUTH HALF OF SECTION 16, (ALSO KNOWN AS LOTS 66 TO 73, INCLUSIVE OF HEREDIA ESTATE), THE NORTH HALF OF SECTION 21, (THE EAST HALF OF SAID NORTH HALF ARE LOTS 58 TO 61 INCLUSIVE OF HEREDIA ESTATE) AND THE NORTH HALF OF SECTION 22 (ALSO KNOWN AS LOTS 54 TO 57 AND 62 TO 65, INCLUSIVE OF HEREDIA ESTATE, AS PER MAP IN THE OFFICE OF THE COUNTY RECORDER) ALL IN TOWNSHIP 13 NORTH, RANGE 7 EAST, MDB&M.

EXCEPTING THEREFROM LOT 60, HEREDIA ESTATE, AS PER MAP FILED IN THE OFFICE OF THE COUNTY RECORDER IN BOOK "A", AT PAGE 15. (ALSO KNOWN AS THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 21, TOWNSHIP 13 NORTH, RANGE 7 EAST, MDB&M.)

APNS: 026-072-045, 026-072-047, 026-072-049-510, 026-072-054 THROUGH 026-072-063, INCLUSIVE AND 026-080-065 THROUGH 026-080-072, INCLUSIVE

85 90  
TM

## EXHIBIT A-2

### LEGAL DESCRIPTION OF 40 ACRE PROPERTY

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

LOT 60 HEREDIA ESTATE, AS PER MAP FILED IN THE OFFICE OF THE COUNTY REORDER IN BOOK "A" OF MAPS AT PAGE 15. (ALSO KNOWN AS THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 21, TOWNSHIP 13 NORTH, RANGE 7 EAST, MDB&M.

APN: 026-072-050-510

BS GP  
TW

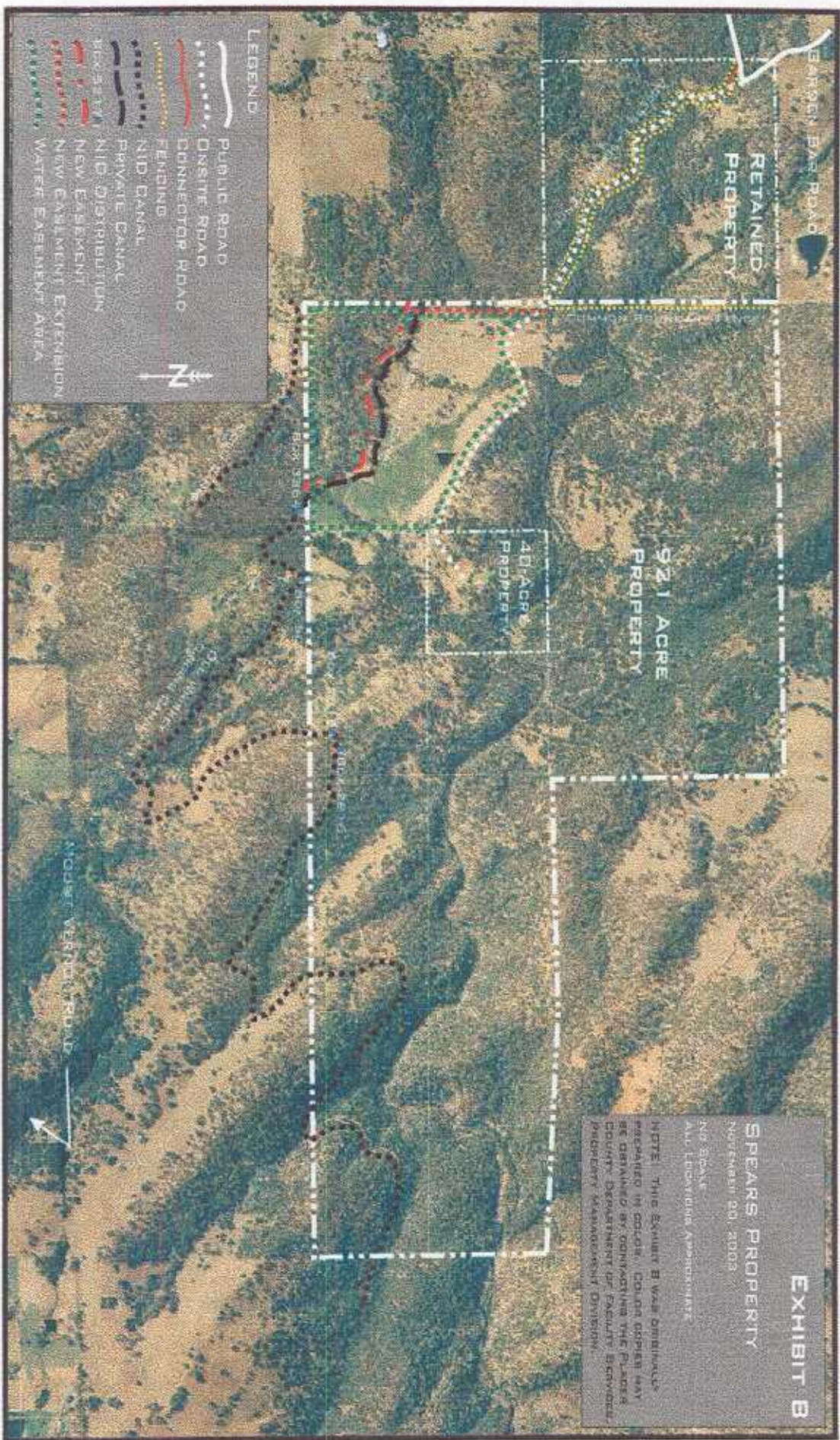


EXHIBIT B  
LOCATION OF IMPROVEMENTS

BS  
TM GP



BS  
 90  
 12







**CONDITIONS OF APPROVAL – CONDITIONAL USE PERMIT -  
“HIDDEN FALLS REGIONAL PARK ”(PCPA 20090391)**

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***THE FOLLOWING CONDITIONS SHALL BE SATISFIED BY THE APPLICANT, OR AN AUTHORIZED AGENT. THE SATISFACTORY COMPLETION OF THESE REQUIREMENTS SHALL BE DETERMINED BY THE DEVELOPMENT REVIEW COMMITTEE (DRC), COUNTY SURVEYOR, AND/OR THE PLANNING COMMISSION.***

1. This Conditional Use Permit authorizes the development and use of APN's 026-072-045, 026-072-047, 026-072-054, 026-072-055, 026-072-056, 026-072-057, 026-072-062, 026-072-063, 026-072-076, 026-072-049-510, 026-072-050-510, 026-080-065, 026-080-066, 026-080-067, 026-080-068, 026-080-069, 026-080-070, 026-080-071, 026-080-072, and 026-080-091 for a 1,200-acre passive park. Permitted Uses are those typically associated with a passive park (i.e. hiking, biking, horseback riding, etc). Specific facilities include:

- a. Approximately 14 miles of new multiple-use, natural-surface trails in addition to more than 10 miles of existing ranch roads for hikers, mountain bikers, and equestrians;
- b. Trail and bridge connections to other public trails near the Park property (in addition to the trail network constructed on-site);
- c. American's with Disabilities (ADA) accessible trails including access for ADA vehicles;
- d. Development of a nature/cultural education/commercial kitchen/conference center at the existing ranch house or other suitable location within the facility development zone;
- e. Bridge crossings over Coon Creek and other streams to support the trail network, provide emergency access, and connect to the existing trail system within the Didion Ranch portion of the Park;
- f. Culvert and rock-lined stream crossings over intermittent drainages to support the trails network;
- g. Permanent restroom facilities; portable, holding tank and/or vault-type restroom facilities;
- h. Groundwater wells for drinking water, restrooms, and fire suppression;
- i. Fire suppression facilities (i.e., helistops for emergency use and an emergency water system);
- j. Equestrian facilities (e.g., horse watering facilities, hitching posts);
- k. Picnic areas throughout the Park to accommodate use, including covered pavilions;
- l. Benches and rest areas throughout the Park;

- m. Enclosed animal-proof trash receptacles throughout the Park to accommodate use;
- n. Suitable landscaping around parking areas and restrooms;
- o. Improvements to facilitate public access to viewing areas (i.e. pond-side boardwalk, falls observation deck);
- p. A disc golf course may be developed that would generally coincide with areas of shaded fuel breaks and other upland areas where the foot traffic pattern would not impact sensitive areas;
- q. Drinking fountains;
- r. Designated fishing locations along Coon Creek and/or ponds developed in coordination with the California Department of Fish and Game (DFG);
- s. New fishing ponds developed in conjunction with the fuel load reduction and/or grazing plans and in coordination with DFG;
- t. Film and theater production, subject to County Film Permit requirements;
- u. Hunting is prohibited on the project property other than as allowed by a valid deprivation permit.
- v. Interpretive programs, including signage, displays, and/or guided tours;
- w. A group camping area with one or more formalized fire pits, a group tent area, and/or bunkhouses for scheduled, supervised overnight use within the facility development zone;
- x. Restoration of various habitats within the Park;
- y. Phased construction of parking areas for automobiles and horse trailers via the Garden Bar Road entrance in conjunction with improvements to Garden Bar Road, and expansion of the Didion Ranch parking area;
- z. Use of the Park for grazing and other agricultural uses, educational classes, field trips and scheduled, supervised overnight group camping;
- aa. Reservation-based events consistent with passive recreation and nature enjoyment such as cross-country training and meets. Events with an aggregate of less than 200 people on-site at any given time, not including regular use of the Park, would obtain reservations through the standard reservation system of the Placer County Parks Division. Large events that exceed 200 individuals on-site at any given time or exceed parking capacity would be required to obtain a Temporary Outdoor Event Permit from the County Community Development Resources Agency.

This property is subject to applicable provisions of Article 12.24 et al of the Placer County Code, (hereinafter "County Parks Ordinance"). If conflict exists between this permit and the County Parks Ordinance, the County Parks Ordinance shall take precedence. Changes  
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to the County Parks Ordinance affecting the provisions of this permit shall be considered to automatically amend this permit provided, however, that nothing herein shall be construed as to relieve the applicant of any provisions of the California Environmental Quality Act.

Vehicle access to the Garden Bar side of the Park would be expanded in phases as funding becomes available. Prior to allowing expanded vehicle access for each phase, the corresponding road and parking improvements would be completed.

Construction of facilities or an expansion of the park beyond the description contained in Condition No. 1 above and described here in (with the exception of facilities which are clearly incidental to those listed above) shall be subject to evaluation through a modification of this use permit and a review of the Environmental Impact Report prepared for this use permit. Such facilities include, but are not limited to:

- Park area expansion (except as described in Condition 1 above).
- Construction of active recreation facilities such as ball fields or tennis courts
- Amplified sound

Subject to the Placer County Grading Ordinance and applicable federal and state regulations, ongoing alterations to the trail system to improve stability, avoid resources, and provide user enhancement shall be considered consistent with this permit without need for modification.

*The following Conditions of Approval pertain to construction activities and not on-going maintenance activities unless specifically stated.*

## **IMPROVEMENT PLANS**

2. Any on-site sewage disposal area within 50' of any planned construction shall be shown on the Grading/Improvement Plans. **(EHS)**

## **GRADING**

3. The applicant shall prepare and submit Grading and Drainage Plans (Plans) specifications and cost estimates (per the requirements of Section II of the Land Development Manual [LDM] that are in effect at the time of submittal) to the County for review and approval. The plans shall show all conditions for the project as well as pertinent topographical features both on- and off-site. All existing and proposed utilities and easements, on-site and adjacent to the project, which may be affected by planned construction, shall be shown on the plans. All landscaping and irrigation facilities within the public right-of-way (or public

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easements), or landscaping within sight distance areas at intersections, shall be included in the Plans. The applicant shall pay plan check and inspection fees. (NOTE: Prior to plan approval, all applicable recording and reproduction costs shall be paid). The cost of the above-noted landscape and irrigation facilities shall be included in the estimates used to determine these fees. It is the applicant's responsibility to obtain all required agency signatures on the plans and to secure department approvals. If the Design/Site Review process and/or DRC review is required as a condition of approval for the project, said review process shall be completed prior to submittal of Plans. Record drawings shall be prepared and signed by a California Registered Civil Engineer at the applicant's expense and shall be submitted to the County prior to acceptance by the County of site improvements. Conceptual landscape plans submitted prior to project approval may require modification during the Plan review process to resolve issues of drainage and traffic safety. **(MM 11-1) (ESD)**

4. All proposed grading, drainage improvements, vegetation, tree impacts and tree removal shall be shown on the Plans and all work shall conform to provisions of the County Grading Ordinance (Section 15.48, Placer County Code) and the Placer County Flood Control District's Stormwater Management Manual. The applicant shall pay plan check fees and inspection fees as applicable. No grading, clearing, or tree disturbance shall occur until the Plans are approved and any required temporary construction fencing has been installed and inspected by a member of the DRC. All cut/fill slopes shall be at 2:1 (horizontal:vertical) unless a soils report supports a steeper slope and the County concurs with said recommendation. All facilities and/or easements dedicated or offered for dedication to Placer County or to other public agencies which encroach on the project site or within any area to be disturbed by the project construction shall be accurately located on the Plans. The intent of this requirement is to allow review by concerned agencies of any work that may affect their facilities. The applicant shall revegetate all disturbed areas unless alternate BMP's are approved by the DRC. Revegetation undertaken from April 1 to October 1 shall include regular watering to ensure adequate growth. A winterization plan shall be provided with project Plans. It is the applicant's responsibility to assure proper installation and maintenance of erosion control/winterization during project construction. Provide for erosion control where roadside drainage is off of the pavement, to the satisfaction of the County. If, at any time during construction, a field review by County personnel indicates a significant deviation from the proposed grading shown on the Plans, specifically with regard to slope heights, slope ratios, erosion control, winterization, tree disturbance, and/or pad elevations and configurations, the plans shall be reviewed by the County for a determination of substantial conformance to the project approvals prior to any further work proceeding. Failure of the County to make a determination of substantial conformance may serve as grounds for a stop work notice and/or additional requirements to bring the project back into compliance. **(MM 11-1) (ESD)**

5. Staging Areas: Stockpiling and/or vehicle staging areas shall be identified on the plans and located as far as practical from existing dwellings and protected resources in the area.

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6. Water quality Best management Practices (BMP's) shall be designed according to the California Stormwater Quality Association Stormwater Best Management Practice Handbooks for Construction, for New Development and Redevelopment and shall be shown on the Plans. Construction (temporary) BMPs for the project include, but are not limited to:

- a. Use temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils;
  - b. Store materials and equipment to ensure that spills or leaks; cannot enter the storm drain system or surface water;
  - c. Use water for dust control;
  - d. Construct sediment control basins;
  - e. Regular sweeping of entry and exit areas to minimize off-site sediment transport;
  - f. Install traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and
  - g. Use barriers, such as straw bales, perimeter silt fences, or placement of hay bales, to minimize the amount of uncontrolled runoff that could enter drains or surface water.
- (MM 5-1a, c) (ESD)**

7. Storm drainage from on- and off-site impervious surfaces (including roads) shall be collected and routed through specially designed catch basins, vegetated swales, vaults, infiltration basins, water quality basins, or filters for entrapment of sediment, debris and oils/greases, and other identified pollutants, as approved by the County. BMPs shall be designed at a minimum in accordance with the Guidance Document for Volume and Flow-Based Sizing of Permanent Post-Construction Best Management Practices for Stormwater Quality Protection. Post-development (permanent) BMPs for the project include, but are not limited to:

- a. The project will have an effective system of erosion and sedimentation control, consisting of vegetative and structural measures and management practices, to reduce the damage of erosion and costly clean-up procedures.
- b. Following construction, wattles/fiber rolls and/or gravel filled bags will remain in place until permanent stabilization measures have proven successful.
- c. For the duration of the project, storm drainage within ditch systems associated with switchback construction will have stabilized ditch protection. This will consist of filter fabric, mulch, or a 3-inch gravel base.
- d. Plan development to fit the particular topography, soils, waterways, and natural vegetation of the site, to avoid the creation of erosion problems on the site.
- e. Reduce erosion hazards and runoff volumes and velocity by limiting the length and steepness of slopes. Slopes subject to erosion should not be steeper than 2:1 horizontal to vertical.
- f. Break up long steep slopes by benching, terracing, or diversion structures.

- g. Use existing vegetation to control erosion to (a) shield the soil surface from rain, (b) increase infiltration, (c) reduce velocity of runoff and (d) hold soil in place and act as a filter.
- h. Time the project so that grading and construction occur during the normal dry season to the extent feasible.
- i. The County shall also consult with the RWQCB to acquire the appropriate regulatory approvals that may be necessary to obtain Section 401 water quality certification.

No water quality facility construction shall be permitted within any identified wetlands area, floodplain, or right-of-way, except as authorized by appropriate regulatory authorities. All BMPs shall be maintained as required to ensure effectiveness. The applicant shall provide for the establishment of vegetation, where specified, by means of proper irrigation. **(MM 5-1a, c) (ESD)**

8. Projects with ground disturbance exceeding one acre that are subject to construction storm water quality permit requirements of the National Pollutant Discharge Elimination System (NPDES) program shall obtain such permit from the Regional Water Quality Control Board and shall obtain evidence of a state-issued Waste Discharge Identification number or filing of a Notice of Intent and fees prior to start of construction. **(MM 5-1b) (ESD)**

9. This project is located within the area covered by the County's municipal stormwater quality permit, pursuant to the NPDES Phase II program. Project-related storm water discharges are subject to all applicable requirements of said permit. BMPs shall be designed to mitigate (minimize, infiltrate, filter, or treat) storm water runoff in accordance with "Attachment 4" of Placer County's NPDES Municipal Stormwater Permit (State Water Resources Control Board NPDES General Permit No. CAS000004). **(MM 5-1b) (ESD)**

10. Obtain and Implement Seismic Engineering Design Recommendations. – Prior to approval of Plans, the applicant shall obtain the services of a qualified, licensed geotechnical engineer to examine for traces of the Bear Mountain fault within the project area. If traces of the Bear Mountain fault cross the project area, a qualified, licensed geotechnical engineer shall develop engineering design recommendations for the project area. The recommendations shall include calculation of seismic shaking hazards using the appropriate computer modeling software, and shall include specific structural design recommendations to minimize potential damage to buildings and structures from seismic events. The recommendations shall also include an examination of the traces of the Bear Mountain fault system within the project area, including surface reconnaissance, and shall make recommendations for building foundation and infrastructure design accordingly. All appropriate design recommendations shall be implemented during the project design and construction phases. **(MM 5-2a) (ESD)**



11. No structures intended for human occupancy shall be constructed within a 100-foot-wide no building zone over the Bear Mountain fault traces. However, following completion of the seismic study required in (a) above, the no building zone may be modified if recommended by the geotechnical engineer. **(MM 5-2b) (ESD)**

12. Prior to approval of Plans, the County shall obtain the services of a qualified, licensed geotechnical engineer to prepare a comprehensive final geotechnical report for the entire project area with specific design recommendations sufficient to ensure the safety of soil conditions, project structures, and site occupants. The report shall include project design and construction recommendations to address:

- a. Site preparation and grading, including surface and subsurface prep work, engineered fill materials, fill placement and compaction, trench backfill, and surface drainage;
- b. Foundation requirements specific to the location of each component of the proposed project;
- c. Concrete slabs-on-grade, both interior and exterior;
- d. Retaining and below grade walls; and
- e. Pavements.

The seismic engineering design recommendations shall be incorporated into the project design. The County shall insure adequate field inspection during construction. **(MM 5-2c) (ESD)**

13. A drainage report in conformance with the requirements of Section 5 of the Land Development Manual and the Placer County Storm Water Management Manual that are in effect at the time of submittal shall be prepared and submitted with the Plans. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: written text addressing existing conditions, the effects of the improvements, all appropriate calculations, a watershed map, increases in downstream flows, proposed on- and off-site improvements and drainage easements to accommodate flows from this project. The report shall identify water quality protection features and methods to be used both during construction and for long-term post construction water quality protection. Best Management Practice (BMP) measures shall be provided to reduce erosion, water quality degradation, and prevent the discharge of pollutants to stormwater to the maximum extent practicable. **(MM 11-1) (ESD)**

14. The location, size, and ownership of any canals on the property shall be described in the drainage report and shown on the plans. Provide the County with a letter from the agency controlling the canal describing any restrictions, requirements, easements, etc. relative to construction of the project. Said letter shall be provided to the County prior to the approval of the plans.

15. Provide the County with a letter from the appropriate fire protection district describing conditions under which service will be provided to this project. Said letter shall be provided prior to the approval of plans.

16. In order to protect site resources, no grading activities of any kind may take place within the 100-year flood plain of the stream/drainage ways, unless otherwise approved as a part of this project.

17. With Phase 2 and 3 improvements, submit, for review and approval, a striping and signing plan with the project Plans. The Plans shall include all on- and off-site traffic control devices and shall be reviewed by the County Traffic Engineer. A construction signing plan shall also be provided with the plans for review and approval by the County Traffic Engineer. These plans shall be consistent with the Traffic Safety Study for Garden Bar Road (Psomas: August 7, 2008) and shall include, but not be limited to, the following:

- a. The intersections of Garden Bar Road and Mt Pleasant Road shall be striped. A "STOP" pavement marking, stop limit line and Stop Sign (R1-1) shall be installed.
- b. The tee-intersection identified at Station 108+00 in the Traffic Safety Study for Garden Bar Road shall be striped. A "STOP" pavement marking, stop limit line and Stop Sign (R1-1) shall be installed.
- c. Directional warning signs, guidance signs and other signage shall be included, consistent with the Traffic Safety Study for Garden Bar Road.

18. All storm drain inlets and catch basins within the project area shall be permanently marked/embossed with prohibitive language such as "No Dumping! Flows to Creek" or other language as approved by the County and/or graphical icons to discourage illegal dumping. Message details, placement, and locations shall be included on the plans. County-approved signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, shall be posted at public access points along channels and creeks within the project area. The applicant is responsible for maintaining the legibility of stamped messages and signs.

19. All stormwater runoff shall be diverted around trash storage areas to minimize contact with pollutants. Trash container areas shall be screened or walled to prevent off-site transport of trash by the forces of water or wind. Trash containers shall not be allowed to leak and must remain covered when not in use.

20. Prior to Grading/Grading Permit or Improvement Plan approval and before any grading or clearing occurs on the project site, within 50' of any on-site sewage disposal area, the on-site sewage disposal area(s) on the project site shall be fenced off with fluorescent construction fencing or other barrier approved by Placer County Environmental Health Services and clearly marked with a sign that states "KEEP OFF! Reserved for Sewage Disposal Only". (EHS)

## ROADS/TRAILS

21. The following items shall be completed prior to Phase 1 uses as applicable to comply with the terms of the purchase and sale agreement with the Spears Family Trust, and shall be implemented prior to allowance of Phase 2 uses:

- a. Improve and show on the Plans Garden Bar Road entrance at the new access road to the following standards, consistent with the Traffic Safety Study for Garden Bar Road (Psomas:August 7, 2008). Construct a public road entrance/driveway onto Garden Bar Road to a Plate R-17 LDM standard. The design speed of Garden Bar Road shall be 25 mph, unless an alternate design speed is approved by the County. The improvements shall begin at the outside edge of any future lane(s) as directed by the County. An Encroachment Permit shall be obtained by the applicant or authorized agent from DPW. The Plate R-17 structural section within the main roadway right-of-way shall be designed for a Traffic Index of 7, but said section shall not be less than 3" AC/8" Class 2 AB unless otherwise approved by the County.
- b. Construct and show on the Plans approximately 200 feet of connecting road to existing access road from the intersection of Garden Bar near the existing access road to a Rural Minor Residential Plate R-3 LDM Standard, or as otherwise approved by the County. All access roads subject to public use shall be designed to meet 25 mph design speed criteria, as specified in the latest version of the Caltrans Highway Design Manual unless otherwise approved by the County.
- c. Construct and show on the Plans a new public access gate at the new access road from Garden Bar near the existing access road. Minimum Plate R-9 LDM turnaround shall be provided so that vehicles may enter Garden Bar Road in a forward facing direction, to the satisfaction of the servicing Fire Department, and as approved by the County.

Additional widening may be required to accommodate auxiliary lanes, intersection geometrics, bike lanes, or conformance to existing improvements. The roadway structural section shall be designed for a Traffic Index of 7, but said section shall not be less than 3" AC/8" Class 2 AB, unless otherwise approved by the County. (Ref. Section 4, LDM).

22. The following items shall be completed prior to allowance of Phase 2 uses:

- a. Improve and show on the Plans Garden Bar Road from Mt. Pleasant Road to the access road to a modified Rural Minor Residential Plate R-1 LDM Standard with 18-foot pavement with 2 2-foot AB shoulders, or as otherwise approved by the County. All access roads shall be designed to meet 25 mph design speed criteria, as specified in the latest version of the Caltrans Highway Design Manual unless otherwise approved by the County.

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b. Vertical curves, signing and striping along Garden Bar Road shall be improved and shown on the Plans in accordance with the Traffic Safety Study for Garden Bar Road.

c. Improve and show on the Plans the access road from Garden Bar to the western parking area to a Rural Minor Residential Plate R-3 LDM Standard, or as otherwise approved by the County. All on-site roads subject to public use shall be designed to meet 25 mph design speed criteria, as specified in the latest version of the Caltrans Highway Design Manual unless otherwise approved by the County.

Additional widening may be required to accommodate auxiliary lanes, intersection geometrics, bike lanes, or conformance to existing improvements. The roadway structural section shall be designed for a Traffic Index of 7, but said section shall not be less than 3" AC/8" Class 2 AB, unless otherwise approved by the County. (Ref. Section 4, LDM).

23. The following items shall be completed prior to allowance of Phase 3 uses:

a. Improve and show on the Plans Garden Bar Road from Mt. Pleasant Road to the access road to a Rural Minor Residential Plate R-1 LDM Standard, or as otherwise approved by the County. All access roads subject to public use shall be designed to meet 25 mph design speed criteria, as specified in the latest version of the Caltrans Highway Design Manual unless otherwise approved by the County.

b. Horizontal curves, roadway width, signing and striping along Garden Bar Road shall be improved and shown on the Plans in accordance with the Traffic Safety Study for Garden Bar Road.

Additional widening may be required to accommodate auxiliary lanes, intersection geometrics, bike lanes, or conformance to existing improvements. The roadway structural section shall be designed for a Traffic Index of 7, but said section shall not be less than 3" AC/8" Class 2 AB, unless otherwise approved by the County. (Ref. Section 4, LDM).

24. Reservation-based events (involving less than 200 people on-site at a given time) would be regulated by the County Parks Division Reservation System. The Reservation System would include, but not be limited to, applicable restrictions on:

a. event start and end times so as not to exceed peak usage capacity of Garden Bar Road or coincide with scheduled use of the road by school buses;

b. regulation of number and types of vehicles so as not to exceed parking capacity (i.e., 50 paved stalls and 20 truck and trailer gravel stalls) in combination with daily use;

c. the range of vehicle sizes allowed on Garden Bar Road during Phases 1 and 2 to be determined by the County Department of Public Works. Vehicles exceeding the maximum unrestricted size on Garden Bar Road shall be subject to County-imposed traffic controls.

The County may also regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary. (MM 8-1) (ESD)

25. All on-site parking and circulation areas shall be improved with a minimum asphaltic concrete or Portland cement surface capable of supporting anticipated vehicle loadings, or as otherwise approved by the County. It is recommended that the pavement structural section be designed in accordance with recommendations of a soils/pavement analysis and should not be less than 2" AC over 4" Class 2 AB, or the equivalent.

An exception shall be made for equestrian and overflow areas, as identified in the project description, which shall be capable of supporting a 40,000-pound vehicle. It is recommended that the minimum surfacing be 6" aggregate base on 90% compacted soil.

26. Public roadway improvements, constructed with each project phase, shall include adequate vehicular turn-around improvements (e.g. cul-de-sac or hammerhead) to minimum Plate R-2 LDM standards and easements as required by the County. As each road is extended into other project phases, these turn-around improvements shall be removed or modified as required.

27. Proposed road names shall be submitted to the Engineering and Surveying Department (ESD) – Addressing (530-889-7530) for review and shall be approved by the County prior to plan approval.

## **PUBLIC SERVICES**

28. Calculate Water Demands for Fire Suppression - If groundwater is to be used for emergency fire suppression water, the County shall amend the April 7, 2009, Water Demand Calculation Report (Placer County 2009) to include fire suppression water requirements. If it is found that fire suppression requirements combined with water demands for other proposed uses is consistent with yields found in nearby private wells (1.3 to 7 gpm) then no further mitigation is required. If fire suppression requirement surpasses yields found in nearby private wells, one of the following shall be done:

- a. modify proposed uses at each well location to be consistent with available water that would not surpass similar yields of nearby wells;
- b. utilize Nevada Irrigation District raw irrigation water sources including but not limited to existing canals and ponds, new ponds, and/or irrigation fed underground storage tanks;
- c. fill storage tanks during off-peak periods when use is limited (i.e. winter and nighttime periods);
- d. import water needed to meet fire suppression requirements for emergency storage tanks via water trucks so that this water is not being pulled from the wells. (MM

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29. Prior to the approval of the plans, provide the County with proof of notification (in the form of a written notice or letter) of the proposed project to:

- a. Western Placer Unified School District
- b. The Placer County Sheriff's Office

30. Prior to Grading/Improvement Plans approval, submit to EHS a "will-serve" letter from the franchised refuse collector for weekly or more frequent refuse collection service. The project shall subscribe to weekly mandatory refuse collection services from the refuse collection franchise holder. (EHS)

## **FEES**

31. This project will be subject to the payment of traffic impact fees that are in effect in this area (Placer Central Fee District), pursuant to applicable Ordinances and Resolutions. The applicant is notified that the following traffic mitigation fee(s) will be required and shall be paid to Placer County DPW prior to issuance of any Building Permits for the project:

- a. County Wide Traffic Limitation Zone: Article 15.28.010, Placer County Code
- b. South Placer Regional Transportation Authority (SPRTA)
- c. Placer County / City of Roseville JPA (PC/CR)

The fees to be paid shall be based on the fee program in effect at the time that the application is deemed complete.

## **DEDICATIONS**

32. Provide the following easements/dedications on the plans to the satisfaction of the County:

- a) Any required easements for the off-site widening of Garden Bar Road and the project access road from Garden Bar Road shall be required prior to the County approving Plans for any portion or phase of the project affected by the easement. (ESD)
- b) Public utility easements as required by the serving utilities, excluding wetland preservation easements (WPE). (ESD)
- c) Drainage easements as appropriate. (ESD)
- d) Provide private easements for existing or relocated water lines, service/distribution facilities, valves, etc., as appropriate. (ESD)

## **ENVIRONMENTAL HEALTH**

33. The existing onsite sewage disposal system serving the existing residence shall be properly abandoned under permit with Environmental Health Services prior to Final Occupancy Approval for the nature center/ bunkhouse unless otherwise approved by EHS. **(EHS)**

34. Prior to Grading/Improvement Plan approval place a Note on the Grading/Improvement Plans to indicate that the approved on-site sewage disposal system area and the 100% replacement area shall not be graded, compacted or in any way altered or encumbered and must remain available, free of vehicular traffic, parking, structures of any type, or soil modification. **(EHS)**

35. Prior to Grading/Improvement Plan approval, indicate on the Grading/Improvement Plans and Final Map or Development Notebook the location of each approved minimum usable sewage disposal area. Notation shall be made on the documents that the shown minimum usable sewage disposal area shall remain unaltered and available, free of vehicular traffic, parking, structures of any type, or soil modification and shall not be graded, compacted, or, in any way, altered or encumbered. **(EHS)**

36. Prior to Building Permit issuance for any structure that will be served by an onsite sewage disposal system, the applicant/owner shall contact EHS, pay required fees, and obtain an approved Septic Construction Permit, and as approved, install on-site sewage disposal systems for the staging area and the nature center/ bunkhouse. Prior to final occupancy, connect each structure to the new systems. **(EHS)**

37. If portable toilets are used during temporary events, the portable toilets shall be located such that they are accessible to a septic pumper truck for maintenance. The project proponent will be required to obtain a maintenance contract and retain all receipts of pumping and maintenance activity for the portable toilets. **(EHS)**

38. Any proposed use of a vault privy or other type of onsite sewage disposal method shall be approved by EHS and shall comply with all requirements of the Placer County On-Site Sewage Program Ordinance and Manual. **(EHS)**

39. Prior to Building Permit issuance for any structures and/or services that will be served by a public water well, there shall be adequate assurances that a public water well, designed and operated in conformance with the California Safe Drinking Water Act and related codes and regulations can serve the project. Domestic water quality and quantity shall be subject to approval by EHS. **(EHS)**

40. Prior to public use of any new public water system, this project shall install backflow prevention device(s) to the satisfaction of EHS to protect the public water supply from improper cross-connections. **(EHS)**

41. Prior to public use of the western staging area and/or nature center (areas that will require new public wells), this project shall obtain a Transient Non-community Water System Permit and shall implement Mitigation Measure 11-2 on page 11-15 of the Hidden Falls Regional Park Environmental Impact Report. **(EHS)(MM)**

42. Until a Public Water Supply permit is issued by EHS for this project, the project is prohibited from providing water service to the public, including flush toilets and/or restrooms other than water provided under existing Public Water Supply permit. **(EHS)**

43. This project will be required to install bear resistant garbage containers as required by Placer County Code, Section 8.16. **(EHS)**

44. Prior to expanded public use of the park, the applicant shall submit to EHS, a solid waste management plan. A plan form specifying required information can be obtained in the EHS office. **(EHS)**

45. Prior to Final Occupancy Approval, the Property Owner and/or Occupant shall submit payment of required fees and a Hazardous Materials Business Plan to EHS Hazardous Materials Section, for review and approval. **PLEASE NOTE:** "Hazardous" materials, as defined in Health and Safety Code Division 20, Chapter 6.95, Articles 1 & 2, shall not be allowed on any premises in regulated quantities without notification to EHS. **(EHS)**

46. This project shall implement measures to reduce hazards associated with potential releases of hazardous materials as described in Mitigation Measure 14-1 on pages 14-9 and 14-10 of the Hidden Falls Regional Park Environmental Impact Report. **(EHS)(MM)**

47. This project shall prepare and implement a safety hazard plan and conduct soil sampling as described in Mitigation Measure 14-2 on pages 14-10 and 14-11 of the Hidden Falls Regional Park Environmental Impact Report. **(EHS)(MM)**

48. Placer County Code Chapter 8, Article 8.24 provides that Industrial and other non-domestic wastes shall not be disposed of in an on-site sewage disposal system at any time.

49. Prior to public use of the park, a mosquito control management/maintenance program shall be approved by the Placer Mosquito Abatement District. The project applicant shall obtain a copy



of the Placer Mosquito Abatement District Guidelines and Standards for Vector Prevention in Proposed Developments. This project shall abide by these guidelines. **(EHS)**

50. Prior to Grading/Improvement Plans approval, a Note shall be placed on the Grading/Improvement plans to indicate that if at any time during excavation, grading, or during the course of constructing the proposed project, evidence of soil or groundwater contamination with hazardous materials is encountered, the applicant shall immediately stop the project and contact the EHS Hazardous Materials Section. The project shall remain stopped until there is resolution of the contamination problem to the satisfaction of EHS and the Central Valley RWQCB. A note to this effect shall be placed on the Grading/Improvement Plans. **(EHS)**

51. Prior to Building Permit issuance or tenant improvement for the Food Facility and/or commercial kitchen, contact EHS, pay required fees, and apply for a plan check. Submit to EHS for review and approval complete construction plans and specifications as specified by EHS. **(EHS)**

52. Prior to use of any part of the park as a food facility, the applicant/operator shall contact EHS, pay required fees, and obtain a permit to operate a food facility. All food handling operations shall comply with the requirements of Placer County Code and the California Food Code. **(EHS)**

53. If Best Management Practices are required by the Engineering and Surveying for control of urban runoff pollutants, then any hazardous materials collected during the life of the project shall be disposed of in accordance with all applicable hazardous materials laws and regulations. **(EHS)**

54. During construction, temporary storage and use of hazardous substances shall comply with Fire and EHS regulations and requirements, and spill prevention practices shall be used. **(EHS)**

55. Demolition waste that contains lead-based paint and/or asbestos may be considered hazardous waste and shall be properly handled and disposed. **(EHS)**

56. If project facilities will be used for multiple-day, overnight educational, agricultural, cultural, scouting, or environmental education camps, this project will comply with the California Health and Safety Code (Division 13, Part 2.3, Camps) regarding minimum standards and regulations for organized camps. **(EHS)**

57. Animal solid waste shall be handled, stored, and removed in accordance with the provisions of Placer County Code, Section 8.16.120(B).

58. The project shall conform to the Placer County Noise Ordinance.

59. Construction noise emanating from any construction activities for which a Building Permit is required is prohibited on Sundays and Federal Holidays, and shall occur only:

- a. Monday through Friday, 6:00 a.m. to 8:00 p.m. (during daylight savings)
- b. Monday through Friday, 7:00 a.m. to 8:00 p.m. (during standard time)
- c. Saturdays, 8:00 a.m. to 6:00 p.m.

## **AIR POLLUTION**

Note: The following conditions apply to the construction of roads and staging areas. Other than local and state rules or ordinances, trail construction and other routine maintenance of the facility are not subject to the following conditions:

60. a. Prior to approval of Grading or Improvement Plans the applicant shall submit a Construction Emission / Dust Control Plan to the Placer County APCD. This plan must address the minimum Administrative Requirements found in section 300 and 400 of APCD Rule 228, Fugitive Dust. The applicant shall not break ground prior to receiving APCD approval of the Construction Emission / Dust Control Plan. **(APCD)**

b. Include the following standard note on the Improvement/Grading Plan: The prime contractor shall submit to the District a comprehensive inventory (i.e. make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. If any new equipment is added after submission of the inventory, the prime contractor shall contact the APCD prior to the new equipment being utilized. At least three business days prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the property owner, project manager, and on-site foreman. **(APCD)**

c. Prior to approval of Grading or Improvement Plans, the applicant shall provide a written calculation to the Placer County APCD for approval by the District demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction as required by CARB. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The following link shall be used to calculate compliance with this condition and shall be submitted to the Placer County APCD as described above:

<http://www.airquality.org/ceqa/ConstructionEmissionsMitigationCalculatorv6o03-2007March09.xls> **(APCD)**

61. Include the following standard note on the Improvement/Grading Plan: Construction equipment exhaust emissions shall not exceed District Rule 202 Visible Emission limitations. Operators of vehicles and equipment found to exceed opacity limits are to be immediately notified by APCD to cease operations and the equipment must be repaired within 72 hours. Additional information regarding Rule 202 can be found at: <http://www.placer.ca.gov/Departments/Air/Rules.aspx> (APCD - Rule 202)

62. Include the following standard note on the Improvement/Grading Plan: If required by the Department of Engineering and Surveying and/or the Department of Public Works, the contractor shall have a pre-construction meeting for grading activities. The contractor shall invite the Placer County APCD to the pre-construction meeting in order to discuss the construction emission/dust control plan with employees and/or contractors. (APCD)

63. Include the following standard note on the Improvement/Grading Plan: The contractor shall suspend all grading operations when fugitive dust exceeds Placer County APCD Rule 228 (Fugitive Dust) limitations. The prime contractor shall be responsible for having an individual who is CARB-certified to perform Visible Emissions Evaluations (VEE). This individual shall evaluate compliance with Rule 228 on a weekly basis. It is to be noted that fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. If lime or other drying agents are utilized to dry out wet grading areas they shall be controlled as to not to exceed Placer County APCD Rule 228 Fugitive Dust limitations. (APCD – Rule 228)

64. Prior to approval of Grading or Improvement Plans, an enforcement plan shall be established, and submitted to the APCD for review, in order to weekly evaluate project-related on-and-off- road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180 - 2194. An Environmental Coordinator, hired by the prime contractor or property owner, and who is CARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely evaluate project related off-road and heavy duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified by APCD and the equipment must be repaired within 72 hours. (APCD – Rule 202 / California Code of Regulations, Title 13, Sections 2180 - 2194)

65. Include the following standard note on the Improvement/Grading Plan: During construction, no open burning of removed vegetation shall be allowed. All removed vegetative material shall be either chipped on site or taken to an appropriate disposal site. (APCD - Rule 318)

NOTE: Burn permits, issued by APCD, may be required for burning of vegetation as a part of routine maintenance.

66. Include the following standard note on the Improvement/Grading Plan: The prime contractor shall be responsible for keeping adjacent public thoroughfares clean of silt, dirt, mud, and debris, and shall "wet broom" the streets(or other method to control dust as approved by the individual jurisdiction) if silt, dirt, mud or debris is carried over to adjacent public thoroughfares. Dry mechanical sweeping is prohibited. **(APCD – Rule 228 / section 401.5)**

67. Include the following standard note on the Improvement/Grading Plan: During construction, traffic speeds on all unpaved surfaces shall be limited to 15 miles per hour or less. **(APCD – Rule 228 / section 401.2)**

68. Include the following standard note on the Improvement/Grading Plan: The prime contractor shall suspend all grading operations when wind speeds (including instantaneous gusts) exceed 25 miles per hour and dust is impacting adjacent properties. **(APCD Rule 228 / section 402)**

69. Include the following standard note on the Improvement/Grading Plan: The contractor shall apply water to control dust, as required by Rule 228, Fugitive Dust, to prevent dust impacts offsite. Operational water truck(s), shall be onsite, at all times, to control fugitive dust. Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site. **(APCD Rule 228 / section 401.1, 401.4)**

70. Include the following standard note on the Improvement/Grading Plan: During construction, the contractor shall minimize idling time to a maximum of 5 minutes for all diesel powered equipment. **(APCD - Placer County Code / section 10.14.040 Idling)**

71. Include the following standard note on the Improvement/Grading Plan: The contractor shall use CARB ultra low diesel fuel for all diesel-powered equipment. In addition, low sulfur fuel shall be utilized for all stationary equipment. **(APCD – California Standards for Motor Vehicle Diesel Fuel, title 13, article 4.8, chapter 9, California Code of Regulations).**

72. Include the following standard note on the Improvement/Grading Plan: The contractor shall utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators. **(APCD)**

73. Include the following standard note on the Improvement/Grading Plan: All on-site stationary equipment which is classified as 50 hp or greater shall either obtain a CARB issued portable equipment permit or a Placer County APCD issued portable equipment permit. **(APCD - California Portable Equipment Registration Program, Section 2452).**

74. Include the following standard note on the Improvement Plans and the Demolition Permit: The demolition or remodeling of any structure may be subject to the National Emission Standard

for Hazardous Air Pollutants (NESHAPS) for Asbestos. This may require that a structure to be demolished be inspected for the presence of asbestos by a certified asbestos inspector, and that all asbestos materials are removed prior to demolition. For more information, call the California Air Resources Board at (916) 916) 322-6036 or the U. S. EPA at (415) 947-8704. (APCD – Calif. Code Regulations, Title 22 / Code of Federal Regulations, Title 40)

75. Prior to the start of construction activities, the County shall test the on-site soils for the presence of asbestos. If asbestos is not present in on-site soils, no further measure would be required. If asbestos is determined to be present on-site, the County shall prepare and implement an asbestos dust control plan as described in Mitigation Measure 9-1. (APCD) (MM 9-1)

## **VEGETATION & OTHER SENSITIVE NATURAL AREAS**

76. Temporary Construction Fencing: The applicant shall install a 4' tall, brightly colored (usually yellow or orange), synthetic mesh material fence (or an equivalent approved by the DRC) at the limits of construction, outside the drip line of all trees 5" dbh (diameter at breast height), or 10" dbh aggregate for multi-trunk trees, within 50' of the pedestrian/equestrian bridges, access road and parking lot, prior to any construction equipment being moved on-site or any construction activities taking place.

No development of this site, including grading, will be allowed until this condition is satisfied. Any encroachment within these areas, including drip lines of trees to be saved, must first be approved by the County. Temporary fencing shall not be altered during construction without written approval of the County. No grading, clearing, storage of equipment or machinery, etc., may occur until a representative of the County has inspected and approved all temporary construction fencing. This includes both on-site and off-site improvements. Efforts should be made to save trees where feasible. This may include the use of retaining walls, planter islands, pavers, or other techniques commonly associated with tree preservation.

Said fencing and a note reflecting this Condition shall be shown on the Grading Plans and/or Improvement Plans.

77. In order to reduce impacts on foothill yellow-legged frogs and northwestern pond turtles, construction of foot bridges and trails across smaller drainages shall occur when the drainages are dry, to the extent feasible. Immediately prior to construction in Coon Creek, the County shall determine, in consultation with the California Department of Fish and Game (DFG), whether aquatic habitat at work sites would support foothill yellow-legged frog and/or northwestern pond turtle habitat. If aquatic habitat for foothill yellow-legged frog and/or northwestern pond turtle is present at work sites, the County shall minimize impacts on these

species by implementing the measures detailed within Mitigation Measure 12-4 in the Mitigation Monitoring Program (MMP). **(MM 12-4)**

78. Before any work in or within 200 feet of aquatic habitat, the County shall determine whether aquatic habitat is occupied by California red-legged frog, in consultation with USFWS as applicable. If aquatic habitat in the project area is occupied by California red-legged frog, the County shall minimize impacts on California red-legged frog by implementing the measures outlined in Mitigation Measure 12-3 of the MMP. **(MM 12-3)**

79. The County and its primary construction contractor shall implement the measures found within Mitigation Measure 12-1 of the MMP to reduce impacts on aquatic habitats and the native fish community in the project area. **(MM 12-1)**

80. Prior to construction, the County shall obtain a verified wetland delineation from United States Army Corps of Engineers (USACE). Based on the results of the verified delineation, the County shall commit to replace, restore, or enhance on a "no net loss" basis, in accordance with USACE and the Central Valley Regional Water Quality Control Board (RWQCB), the acreage of all waters of the United States and wetland habitats that would be affected by implementation of the project. Wetland restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the Central Valley RWQCB, as determined during the Sections 404, 1602, and 401 permitting processes and as stipulated in Mitigation Measure 12-2. **(MM 12-2)**

81. For work conducted onsite during raptor nesting season (March 1 through August 31), a survey for active raptor nests shall be conducted prior to construction or events nor more than 2 weeks prior to the start of the activity. If an active nest is found within the survey area, no construction activities shall occur within a 500-foot radius of the nest (.25 miles for golden eagle) until the young have fledged or the nest is otherwise no longer active as determined by a qualified biologist. Tree removal for trees larger than 5 inches diameter at breast height (dbh) shall be completed in accordance with the Placer County Tree Ordinance. **(MM 12-5)**

82. A qualified biologist shall conduct pre-construction surveys to identify Townsend's Big-Eared Bat hibernation roost and maternity sites and potential Ringtail den sites in suitable habitat within 100 feet of proposed trails (i.e., those areas directly affected by trail construction). For bats, roost habitat surveys should focus on locations of mine tunnels, caves, abandoned buildings, and rock crevices; for ringtail, potential den site surveys should focus on locations of trees 5 inches dbh or greater in riparian areas. The County shall avoid locating trails within 100 feet of bat roosts and ringtail dens. If avoidance is not possible, the County shall survey those locations to determine if they are occupied by the target species. If sites are not occupied, they may be

sealed or removed in accordance with the specifications found within Mitigation Measure 12-6. (MM 12-6)

83. The locations of known Brandegees clarkia occurrences in the project area shall be clearly marked for avoidance by construction crews before the commencement of project construction activities. If construction activities cannot avoid Brandegees clarkia occurrences, then prior to commencement of construction, the measures detailed within Mitigation Measure 12-7 shall be implemented. (MM 12-7)

84. If removal of native oaks larger than 5 inches dbh is required during construction of the proposed project, the County shall compensate for removal of those trees by either paying in-lieu fees into the County approved oak woodland preservation fund as stipulated in the Placer County Tree Ordinance and in consultation with a certified arborist or issue payment of \$24,000 per acre of woodland impacted into the Placer County Tree Preservation Fund. The Fund will be used for the purchase of conservation easements within the County where existing oak woodlands that form a contiguous habitat can be permanently set aside. (MM 12-8)

## MISCELLANEOUS CONDITIONS

85. The County will prepare detailed design of trails, roads, and Park facilities to ensure that direct effects associated with project implementation avoids all significant and potentially significant documented cultural resources in the project area. As part of the County's ongoing operational responsibility, usage trends that threaten any potentially significant documented cultural resources will be actively managed to avoid damage. If designing such trails and facilities to avoid potential impacts is not feasible or if management of Park usage indicates potential impacts to significant or potentially significant cultural resources, an approved treatment plan shall be drafted and implemented to mitigate the significant impacts. Such a plan may include one or more of the following elements:

- a. vegetation removal and surface inspection;
- b. ethnographic studies or Native American consultation, or both;
- c. subsurface testing; and
- d. if necessary, data recovery. (MM 6-1)

86. Given the potential for subsurface deposits, if undocumented resources are encountered during construction, all destructive work in the vicinity of the find shall cease until a qualified professional archaeologist can assess the significance of the find and, if appropriate, provide recommendations for treatment. Appropriate measures for treatment may include no action, avoidance of the resource through relocation of Park facilities, subsurface testing, and potentially data recovery. For any such discovery, a memorandum documenting the results of the evaluation shall be provided to the County by the archaeologist, and the County shall

forward the memorandum to the California Department of Parks and Recreation and the State Historic Preservation Officer. **(MM 6-2)**

87. If human remains are uncovered during ground-disturbing activities, the construction contractor or the County, or both, shall immediately halt potentially damaging excavation in the area of the burial and notify the County coroner and a qualified professional archaeologist to determine the nature of the remains. The coroner shall examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands, in accordance with Section 7050(b) of the Health and Safety Code. If the coroner determines that the remains are those of a Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). After the coroner's findings are presented, the County, the archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. **(MM 6-3)**

88. To address the potential degradation of visual quality resulting from tree removal along Garden Bar Road, the County shall revegetate and restore all disturbed areas within sight of Garden Bar Road. Revegetation undertaken between April 1 and October 1 shall include regular watering to ensure adequate initial growth. To the extent feasible, restoration of trees and shrubs shall reduce visual impacts for affected properties. Revegetation of disturbed areas shall promote restoration of vegetation over time that is as consistent as feasible with the surrounding natural landscape, recognizing constraints of the right-of-way and available space. The County shall prepare a restoration and revegetation plan that implements actions intended to mitigate the impacts on trees and vegetation removed along Garden Bar Road. The plan will be prepared in conjunction with detailed roadway engineering design, so that precise areas of disturbance are known and the revegetation process can be coordinated with roadway implementation. Portions of the revegetation plan may be implemented on adjacent property outside the County road right-of-way by agreements with willing property owners. **(MM 7-1)**

89. Reservation-based events (involving less than 200 people on-site at a given time including use of the Nature Education Center/Group Camp Area) would be regulated by the County Parks Division Reservation System. The Reservation System would include, but not be limited to, applicable restrictions on:

- a. event start and end times so as not to exceed peak usage capacity of Garden Bar Road or coincide with scheduled use of the road by school buses;
- b. regulation of number and types of vehicles so as not to exceed parking capacity (i.e., 50 paved stalls and 20 truck and trailer gravel stalls) in combination with daily use;
- c. the range of vehicle sizes allowed on Garden Bar Road during Phases 1 and 2 to be determined by the County Department of Public Works. Vehicles exceeding the



maximum unrestricted size on Garden Bar Road shall be subject to County-imposed traffic controls.

The County may also regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary. **(MM 8-1)**

90. In order to reduce the risk of wildfires on the property, the subject site shall include the development of the following features:

- a. Construction of an emergency access bridge over Coon Creek capable of sustaining a 40,000 lb. emergency vehicle.
- b. Construction of a graded pad near the parking lot for the Spears Ranch portion of the Park for use as a helipad for emergency evacuation or fire control purposes.
- c. Construction of a hydrant system and emergency water storage system for fire protection.
- d. Fuels management practices shall be incorporated into the ongoing maintenance activities associated with the park site.
- e. Campfires would not be allowed outside of the designated campfire pit areas. Campfires would be regulated through the Placer County Parks Division reservation system, and only individuals with valid reservations would be allowed to operate campfires at the designated campfire pit areas. In addition to other state and local restrictions on burning and campfires, the Placer County Parks Division may, in its discretion or in consultation with local fire authorities, deny the use of campfires during times of elevated wildfire risk.

91. All Mitigation Measures in the Mitigation Monitoring and Reporting Program (Section 5 of the Final Environmental Impact Report) are hereby included in their entirety as Conditions of Approval for this project.

92. Any entrance structure proposed by the applicant shall be reviewed and approved by the County, shown on the project plans, and shall be located such that there is no interference with driver sight distance as determined by the County, and shall not be located within the right-of-way. Any entrance monument or structure erected within the front setback on any lot, within certain zone districts, shall not exceed 3-feet in height (Ref. Chapter 17, Article 17.54.030, Placer County Zoning Ordinance).

93. During project construction requiring staking in the County right-of-way, staking shall be provided pursuant to Section 5-1.07 of the County General Specifications.

## **DEVELOPMENT STANDARDS**

94. Hours of operations for the park shall be 6am until 30 minutes after sunset. Gates to the park shall remain closed at all other times. The Department of Facility Services shall review and approve requests for special events and use of the nature center/group camp area that do not conform to these hours unless a special events permit is required. (MM 10-1)

95. Security lighting is proposed for the buildings, restrooms, bunkhouses, existing ranch house, nature education center, and parking areas. Lighting in these areas shall be directed downward to minimize excess glare and will utilize low wattage. No other lighting is included as part of the project.

96. Parking areas will be limited to the general location depicted on the 2006 Site Plan included as Attachment B of this staff report. The existing Mears Drive parking area may be expanded from 50 to as many as 75 parking spaces for cars and from six to as many as 12 parking spaces for trucks and trailers. A parking area within the facility development zone to serve the Nature Education Center/Group Camp area may be constructed in Phase 1. The new parking area on the Garden Bar Road side will be constructed prior to Phase 2 uses and will accommodate a 50-stall paved parking lot and gravel overflow area for cars. In Phase 3, daily public access for equestrian trailers would be allowed to the western parking area via Garden Bar Road, and a gravel equestrian staging area will be constructed to allow parking for up to 20 horse trailers.

97. The County shall review and approve the specific design and details for the parking lot, trail system, bridges, fencing, etc. Site plans, landscape plans, any proposed lighting or signs and other similar site design features shall be subject to County review.

98. Directional signage may be displayed offsite at local intersections and at the park entrance.

## **EXERCISE OF PERMIT**

99. The project is approved as a phased project. The County shall determine when any of the preceding conditions apply to a given phase of development where such timing is not specified in the condition.

100. The applicant shall have 36 months to exercise this Conditional Use Permit. This permit will be considered fully exercised upon substantial completion of construction improvements for Phase 1. Unless exercised, this approval shall expire on February 8, 2013.



**COUNTY OF PLACER**  
**Community Development Resource Agency**

Michael J. Johnson, AICP, Agency Director

**PLANNING**

February 9, 2010

Placer County Facility Services – Parks Department  
Attn: Andy Fischer  
11476 C Street  
Auburn CA 95603

RECEIVED  
FACILITY SERVICES  
2010 FEB 10 AM 8:38

**SUBJECT: Hidden Falls Regional Park – Conditional Use Permit (PCPA 20090391)**

This is to confirm the Planning Commission's action with regard to the above-listed project.

At a public hearing on January 28, 2010, the Placer County Planning Commission took action to approve an for a Conditional Use Permit for a 1,200-acre passive park, subject to the attached set of conditions.

Please sign and mail or fax the attached applications to the address or fax number below.

Sincerely,

Kathi Heckert  
Senior Board/Commission Clerk

cc:

Chuck Grant, Engineering & Surveying  
Engineering & Surveying  
Facility Services  
Environmental Health  
Assessor  
Parks Department  
Air Pollution Control District  
Sheriff's Department  
Cal Trans



# PLACER COUNTY PLANNING DEPARTMENT

## AUBURN OFFICE

3091 County Center Drive  
Auburn, CA 95603  
530-745-3000/FAX 530-745-3080  
Website: www.placer.ca.gov/planning

## TAHOE OFFICE

565 W. Lake Blvd./P. O. Box 1909  
Tahoe City CA 96145  
530-581-6280/FAX 530-581-6282  
E-Mail: planning@placer.ca.gov

Print Form

Reserved for Date Stamp

(Staff reports due 11/19/09)

## INITIAL PROJECT APPLICATION

(For Office Use Only)

G.P. Designation AL / TIMBERLAND Posters \_\_\_\_\_ File #'s PCPA-200903911  
General Plan/Community Plan PLACER CO. GP Affordable Housing \_\_\_\_\_ Taxes \_\_\_\_\_ Accepted by LC / ED B.  
Zoning O / F-50 AC. / Tax Rate Area \_\_\_\_\_ Date filed 11/6/09  
Major Project: Yes MAS184 Geographic Team: WEST Hearing Body PC  
Pre-Development Meeting Date \_\_\_\_\_ Acceptable for EQ Filing \_\_\_\_\_

Planner Signature

### -- TO BE COMPLETED BY THE APPLICANT --

1. Project Name Hidden Falls Regional Park
2. Property Owner Placer County Facility Services, Parks Department  
Mailing Address 11476 C Street, Auburn, CA 95603  
Telephone 530-889-6819 Fax 530-889-6809 E-Mail afisher@placer.ca.gov
3. Applicant Placer County Facility Services, Parks Department  
Mailing Address 11476 C Street, Auburn, CA 95603  
Telephone 530-889-6819 Fax 530-889-6809 E-Mail afisher@placer.ca.gov
4. Size of Property (acreage or square footage) 979 acres
5. Assessor's Parcel Number(s) Please see attached
6. Project Location East of Garden Bar Rd., north of Mt. Vernon and Mt. Pleasant roads, west of Bell and Hubbard roads, and south of Big Hill Road.

(Be specific: cross streets, distance and direction from nearest intersection, etc.)

7. What actions, approvals, or permits by Placer County does the proposed project require?
- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Additional Building Site          | <input type="checkbox"/> Environmental Questionnaire             | <input type="checkbox"/> Minor Use Permit                              |
| <input type="checkbox"/> Administrative Approval           | <input type="checkbox"/> Extension of Time                       | <input type="checkbox"/> Project undertaken by County                  |
| <input type="checkbox"/> Administrative Review Permit      | <input type="checkbox"/> General Plan Amendment                  | <input type="checkbox"/> Rezoning                                      |
| <input type="checkbox"/> Certificate of Compliance         | <input type="checkbox"/> Major Subdivision (5+ parcels)          | <input type="checkbox"/> Variance                                      |
| <input checked="" type="checkbox"/> Conditional Use Permit | <input type="checkbox"/> Minor Boundary Adjustment               | <input checked="" type="checkbox"/> Other (Explain) <u>EIR Certif.</u> |
| <input type="checkbox"/> Design Review                     | <input type="checkbox"/> Minor Subdivision (4 and under parcels) |  |

Does the proposed project need approval by other governmental agencies? ☒ Yes \_\_\_\_\_ No. If so, which agencies?

U.S. Army Corps of Engineers, RWQCB, CADFG, and USFWS

Planner: Lisa Carnahan  
ESD: Rebecca Taber  
ESD: Janelle Heinzler  
APCD  
Parks: Vance Kimbrell/Andy Fisher  
~~Building~~  
Environmental Health

8. Which agencies, utility companies provide the following services? **This information must be ACCURATE!**

Electricity	<u>PG&amp;E</u>	Fire Protection	<u>CalFire</u>	Sewer	<u>N/A</u>
Telephone	<u>AT&amp;T</u>	Natural Gas	<u>PG&amp;E</u>	Water	<u>Well</u>
High School	<u>N/A</u>	Elementary School	<u>N/A</u>	Other	<u></u>

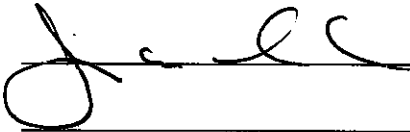
9. Describe the project in detail so that a person unfamiliar with the project would understand the purpose, size, phasing, duration and construction activities associated with the project. In response to this question, please attach additional pages, if necessary.

Please see attached description.

10. I hereby authorize the above-listed applicant to make application for project approvals by Placer County, to act as my agent regarding the above-described project, and to receive all notices, correspondence, etc. from Placer County regarding this project, or
11. As owner I will be acting as applicant. In addition, as owner, I will defend, indemnify, and hold Placer County harmless from any defense costs, including attorneys' fees or other loss connected with any legal challenge, brought as a result of an approval concerning this entitlement. I also agree to execute a formal agreement to this effect on a form provided by the County and available for my inspection.
12. The signature below authorizes any member of the Placer County Development Review Committee (DRC), and other County personnel as necessary, to enter the property/structure(s) that is (are) the subject of this application.

Signature(s) of Owner(s):

Please Print



James Durfee

If application is for a Boundary Line Adjustment, signature of both the transferring and acquiring property owners are required. Boundary Line Adjustments shall not be used to create new parcels.

Signature of Transferring Property Owner

Please Print

Signature of Acquiring Property Owner

Please Print

The Planning Department is prohibited from accepting applications on tax delinquent properties pursuant to Board of Supervisors direction.

Prior to the commencement of any grading and/or construction activities on the property in question, that are based upon the entitlements conferred by Placer County permit approval(s), the applicant should consult with the California Department of Fish & Game (DFG) to determine whether or not a Streambed Alteration Agreement [§1603, CA Fish & Game Code] is required. The applicant should also consult with the U.S. Army Corps of Engineers to determine whether or not a permit is required for these activities pursuant to Section 404 of the Clean Water Act. Fees may be required to be paid to the Department of Fish and Game for their participation in the environmental review process as required by State law. **The applicant's signature on this application form signifies an acknowledgement that this statement has been read and understood.**



## PLACER COUNTY PLANNING DEPARTMENT

Stamp

## AUBURN OFFICE

3091 County Center Drive

Auburn, CA 95603

530-745-3000/FAX 530-745-3080

Website: [www.placer.ca.gov/planning](http://www.placer.ca.gov/planning)

## TAHOE OFFICE

565 W. Lake Blvd./P. O. Box 1909

Tahoe City CA 96145

530-581-6280/FAX 530-581-6282

E-Mail: [planning@placer.ca.gov](mailto:planning@placer.ca.gov)CONDITIONAL USE PERMIT/~~MINOR USE PERMIT~~

Filing fee: \$ \_\_\_\_\_ Type: CUP  
 Receipt # \_\_\_\_\_

File # PCPA-20090391  
 Hearing Date \_\_\_\_\_

## -----TO BE COMPLETED BY THE APPLICANT-----

1. Project Name Hidden Falls Regional Park
2. Applicant Placer County Facility Services, Parks Department
3. Project Description Please see attached

## PLEASE SUBMIT A WELL-DETAILED SITE PLAN (see instructions for requirements)

4. Assessor's Parcel Number(s) Please see attached
5. Applicable County Code section requiring C.U.P. 17.14.010

SIGNATURE OF APPLICANT: [Signature]

**INDEMNIFICATION AGREEMENT:** I, the Applicant, will defend, indemnify, and hold harmless the County from any defense costs, including attorneys' fees or other loss connected with any legal challenge brought as a result of an approval concerning this Entitlement. I also agree to execute a formal agreement to this effect on a form provided by the County and available for my inspection.

SIGNATURE OF APPLICANT: N/A

PERMITS GRANTED FOR AN INDEFINITE PERIOD AUTOMATICALLY EXPIRE 24 MONTHS AFTER DATE OF ISSUANCE IF NOT EXERCISED BY THAT TIME, AS PROVIDED BY SECTION 17.58.160(B)(1) OF THE PLACER COUNTY ZONING ORDINANCE.

## -----OFFICE USE ONLY-----

DECISION OF HEARING BODY: On January 28, 2010, the Planning Commission ~~Zoning Administrator~~ approved/denied this application subject to the attached list of \_\_\_\_\_ findings/conditions.

Kathy Hecker, Sr. Board Commission Clerk

## -----FOR USE AFTER PUBLIC HEARING-----

I have read the above/attached conditions and will comply:

SIGNATURE OF APPLICANT: [Signature]

James Durfee, Director

PLEASE RETURN ONE SIGNED COPY

## **CALIFORNIA DEPARTMENT OF FISH AND GAME**

North Central Region  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670-4599  
916-358-2900



Streambed Alteration Agreement  
Notification No. 1600-2011-0029 -R2  
Unnamed seasonal drainages and Coon Creek  
Placer County Department of Facility Services  
Hidden Falls Regional Park

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Game (DFG) and Placer County Department of Facility Services (Permittee) as represented by Andy Fisher.

### **RECITALS**

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on 17 February, 2011 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, DFG has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

### **PROJECT LOCATION**

The project is located at Coon Creek and associated unnamed seasonal drainages to Coon Creek, in the County of Placer, State of California; Latitude 38.969179, Longitude -121.196272.

### **PROJECT DESCRIPTION**

The project is limited to construction of three vehicle bridges; numerous hiking trail bridges; rock ford crossings of seasonal and intermittent drainages for hiking trails; placement of culverts in drainages for hiking trail and vehicle access roadway construction and placement of temporary culverts for access of construction equipment, as identified in the notification package.

### **PROJECT IMPACTS**

Existing fish or wildlife resources the project could substantially adversely affect include: nesting raptor species, California Black Rail, Brandegees clarkia, warm water fish species, amphibians, and other aquatic and terrestrial plant and wildlife species.

The adverse effects the project could have on the fish or wildlife resources identified above include: temporary disturbance of riparian nesting sites, increased potential for erosion and movement of sediments into seasonal and year-round waterways, disturbance of benthic macroinvertebrate populations

## **STREAM ZONE DEFINED**

The Stream Zone comprises all components of a stream, including the channel, bed, banks, and floodplains. The Stream Zone is the land, including vegetation, that bounds a lake or the channel of a stream and that defines the lateral extent of their waters.

## **MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES**

### **1. Administrative Measures**

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to DFG personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.
- 1.4 Project Site Entry. Permittee agrees that DFG personnel may enter the project site to verify compliance with the Agreement. DFG personnel may only enter the project site when it is safe to do so. When appropriate, DFG personnel shall contact the Permittee prior to entering the construction area.
- 1.5 Authorized Work. The notification, together with all supporting documents submitted with the notification, is hereby incorporated into this agreement to

Initials: 



describe the location and features of the proposed project. The Permittee agrees that all work shall be done as described in the notification and supporting documents, incorporating all project modifications, wildlife resource protection features, mitigation measures, and provisions as described in this agreement. Where apparent conflicts exist between the notification and the provisions listed in this agreement, the Permittee shall comply with the provisions listed in this agreement. The Permittee further agrees to notify DFG of any modifications made to the project plans submitted to DFG. At the discretion of DFG, this agreement will be amended to accommodate modifications to the project plans submitted to DFG and/or new project activities.

## **2. Avoidance and Minimization Measures**

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

- 2.1 Work Period. The time period for completing the work within the stream zone shall be restricted to periods of low stream flow and dry weather. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control measures, inside and outside of the stream zone, have been implemented prior to all storm events. Revegetation, restoration and erosion control work is not confined to this time period.
- 2.2 Work Period Extensions. At DFG's discretion, the work period may be extended based on the extent of the work remaining, on site conditions and reasonably anticipated future conditions. If the Permittee finds more time is needed to complete the authorized activity, the Permittee shall submit a written request for a work period time extension to DFG. The work period extension request shall provide the following information: 1) Describe the extent of work already completed; 2) Provide specific detail of the activities that remain to be completed within the stream zone; and 3) Detail the actual time required to complete each of the remaining activities within the stream zone. The work period extension request should consider the effects of increased stream conditions, rain delays, increased erosion control measures, limited access due to saturated soil conditions, and limited growth of erosion control grasses due to cool weather. Photographs of the work completed and the proposed work areas are helpful in assisting DFG in its evaluation. Time extensions are issued at the discretion of DFG. DFG will have ten calendar days to approve the proposed work period extension. DFG reserves the right to require additional measures designed to protect natural resources.
- 2.3 Stream Diversions / Dewatering. If work in the flowing portion of the stream is unavoidable, the entire stream flow shall be diverted around or through the work area during the excavation and/or construction operations. Stream flow shall be diverted using gravity flow through temporary culverts/pipe's or pumped around the work site with the use of hoses. When any dam or other artificial obstruction is

Initials: ASL

being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937. The temperature of the diverted water will not be allowed to become elevated such that it may be deleterious to aquatic organisms downstream. The dissolved oxygen concentration of the diverted water will not be allowed to drop to a level that may be deleterious to downstream aquatic life. Any temporary dam or other artificial obstruction constructed shall only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel which will cause little or no siltation.

- 2.4 Bird Nests. It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by the Fish and Game Code. No trees that contain active nests of birds shall be disturbed until all eggs have hatched and young birds have fledged without prior consultation and approval of a Department representative.
- 2.5 Vegetation Removal. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. Except for the trees specifically identified for removal in the notification, no native trees with a trunk diameter at breast height (DBH) in excess of four (4) inches shall be removed or damaged without prior consultation and approval of a Department representative. Using hand tools (clippers, chain saw, etc.), trees may be trimmed to the extent necessary to gain access to the work sites. All cleared material/vegetation shall be removed out of the riparian/stream zone.
- 2.6 Sediment Control. Precautions to minimize turbidity/siltation shall be taken into account during project planning and implementation. This may require the placement of silt fencing, coir logs, coir rolls, straw bale dikes, or other siltation barriers so that silt and/or other deleterious materials are not allowed to pass to downstream reaches. Passage of sediment beyond the sediment barrier(s) is prohibited. If any sediment barrier fails to retain sediment, corrective measures shall be taken. The sediment barrier(s) shall be maintained in good operating condition throughout the construction period and the following rainy season. Maintenance includes, but is not limited to, removal of accumulated silt and/or replacement of damaged silt fencing, coir logs, coir rolls, and/or straw bale dikes. **The use of monofilament netting based erosion control blankets is prohibited within the stream zone or associated riparian areas.** The Permittee is responsible for the removal of non-biodegradable silt barriers (such as plastic silt fencing) or the netting surrounding coir logs and/or rolls, after the disturbed areas have been stabilized with erosion control vegetation (usually after the first growing season). Upon Department determination that turbidity/siltation levels resulting from project related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation shall be halted until effective Department approved control devices are installed or abatement procedures are initiated.

Initials: Asf

- 2.7 Pollution Control. Utilize Best Management Practices (BMPs) to prevent spills and leaks into water bodies. If maintenance or refueling of vehicles or equipment must occur on-site, use a designated area and/or a secondary containment, located away from drainage courses to prevent the runoff of storm water and the runoff of spills. Ensure that all vehicles and equipment are in good working order (no leaks). Place drip pans or absorbent materials under vehicles and equipment when not in use. Ensure that all construction areas are covered by a site-wide spill response plan and have proper spill clean up materials (absorbent pads, sealed containers, booms, etc.) to contain the movement of any spilled substances. Any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. Any of these materials, placed within or where they may enter a stream or lake by the Applicant or any party working under contract or with the permission of the Permittee, shall be removed immediately. DFG shall be notified immediately by the Permittee of any spills and shall be consulted regarding clean-up procedures.

### 3. Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

- 3.1 Site Restoration. All exposed/disturbed areas and access points within the stream zone left barren of vegetation as a result of the construction activities shall be restored using locally native grass seeds, locally native grass plugs and/or a mix of quick growing sterile non-native grass with locally native grass seeds. Seeded areas shall be covered with broadcast straw and/or jute netted (monofilament erosion blankets are not authorized). Riparian trees and native shrubs removed as a result of construction activities shall be mitigated on site to maximum extent possible.

### 4. Reporting Measures

Permittee shall meet each reporting requirement described below.

- 4.1 The Permittee shall notify DFG within two working days of beginning work within the stream zone of Coon Creek and associated seasonal and intermittent drainages. Notification shall be submitted as instructed in Contact Information section below. Email notification is preferred.
- 4.2 Upon completion of the project activities described in this agreement, the work area within the stream zone shall be digitally photographed. Photographs shall be submitted to DFG within two days of completion. Photographs and project commencement notification shall be submitted as instructed in Contact Information section below. Email submittal is preferred.

Initials: AK

## CONTACT INFORMATION

Any communication that Permittee or DFG submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or DFG specifies by written notice to the other. Refer to the project's Notification Number when submitting documents to DFG.

### To Permittee:

Placer County Department of Facility Services  
Andy Fisher  
11476 C Avenue  
Auburn, CA 95603  
afisher@placer.ca.gov

### To DFG:

Department of Fish and Game  
North Central Region  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670  
Attn: Lake and Streambed Alteration Program  
Notification #1600-2011-0029 R2  
Fax: 916-358-2912  
bhosea@dfg.ca.gov

## LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute DFG's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

## SUSPENSION AND REVOCATION

DFG may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before DFG suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice

Initials: \_\_\_\_\_



shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before DFG suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused DFG to issue the notice.

## **ENFORCEMENT**

Nothing in the Agreement precludes DFG from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects DFG's enforcement authority or that of its enforcement personnel.

## **OTHER LEGAL OBLIGATIONS**

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 et seq. (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

The Permittee shall notify DFG where conflicts exist between the provisions of this agreement and those imposed by other regulatory agencies. Unless otherwise notified, the Permittee shall comply with the provision that offers the greatest protection to water quality, species of special concern and/or critical habitat.

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

## **AMENDMENT**

DFG may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by Permittee and DFG.

## **TRANSFER AND ASSIGNMENT**

Initials: Asf

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter DFG approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

## **EXTENSIONS**

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to DFG a completed DFG "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). DFG shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code, § 1605, subd. (f)).

## **EFFECTIVE DATE**

The Agreement becomes effective on the date of DFG's signature, which shall be: 1) after Permittee's signature; 2) after DFG complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at [http://www.dfg.ca.gov/habcon/ceqa/ceqa\\_changes.html](http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html).

## **TERM**

This Agreement shall expire five years from the date of DFG signature, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

## **AUTHORITY**

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's

Initials:           



behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

## **AUTHORIZATION**

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify DFG in accordance with FGC section 1602.

Initials: \_\_\_\_\_

*Asf*

**CONCURRENCE**

The undersigned accepts and agrees to comply with all provisions contained herein.


**FOR PLACER COUNTY FACILITY SERVICES**

  
\_\_\_\_\_  
Andy Fisher

JUNE 6, 2011  
\_\_\_\_\_  
Date

Title: *SENIOR PLANNER, PROJECT MANAGER*

**FOR DEPARTMENT OF FISH AND GAME**

  
\_\_\_\_\_  
*K* Kent Smith  
Regional Manager

6/13/11  
\_\_\_\_\_  
Date

Prepared by: Bob Hosea  
Environmental Scientist

Initials: \_\_\_\_\_





California Natural Resources Agency  
DEPARTMENT OF FISH AND GAME  
North Central Region  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670-4599  
916-358-2900  
<http://www.dfg.ca.gov>

EDMUND G. BROWN, Governor  
JOHN McCAMMON, Director



June 10, 2011

Andy Fisher  
Placer County Department of Facility Services  
11476 C Avenue  
Auburn, CA 95603

Subject: Final Lake or Streambed Alteration Agreement  
Notification No. 1600-2011-0029 -R2  
Hidden Falls Regional Park

RECEIVED  
FACILITY SERVICES  
2011 JUN 14 PM 12:51

Dear Mr. Fisher:

Enclosed is the final Streambed Alteration Agreement ("Agreement") for the Hidden Falls Regional Park trail enhancement ("Project"). Before the Department of Fish and Game ("Department") may issue an Agreement, it must comply with the California Environmental Quality Act ("CEQA"). In this case, the Department, acting as a responsible agency, filed a notice of determination ("NOD") on the same date it signed the Agreement. The NOD was based on information contained in the final Environmental Impact Report the lead agency prepared for the Project.

Under CEQA, filing a NOD starts a 30-day period within which a party may challenge the filing agency's approval of the project. You may begin your project before the 30-day period expires if you have obtained all necessary local, state, and federal permits or other authorizations. However, if you elect to do so, it will be at your own risk.

If you have any questions regarding this matter, please contact Bob Hosea at (916) 704-9156 or [bhosea@dfg.ca.gov](mailto:bhosea@dfg.ca.gov).

Sincerely,

Kent Smith  
Regional Manager

cc: Bob Hosea



# COUNTY OF PLACER GRADING PERMIT

3091 County Center Dr.  
Auburn, CA 95603  
(530) 889-7500

DEPT OF FACILITIES SERVICES-HIDDEN FALLS

APN: 026-072-045-000

PERMIT#: DGP - 4851

Project Location (Site Address): NO ADDRESS ON FILE, LINCOLN

Application Date: 02/28/2011

Staff Assigned: TREL

Date Issued: 03/30/2011

Subdivision: 80 AC SEC 21 13 7

Date Expires: 12/31/2012

Project:

Issued By: DERICKSON

Project Description: 1. All trees within 50' of construction to be fenced with protective fencing prior to any grading activity.

2. Erosion / Dust control to be implemented as appropriate. Erosion control to be in place prior to any grading activity.

3. All material / debris to be cleaned from public roadway regularly and not permitted to accumulate.

## OWNER INFORMATION:

Name: PLACER COUNTY OF

Address:

City:

State:

ZIP:

Phone:

## APPLICANT INFORMATION

Name: PLACER COUNTY OF

Address:

City:

State:

Zip:

Phone:

## PERMIT FEES:

Fee Code Desc	Total amount due on permit	Total Fees Paid to date	Total remaining Due	Date Paid	Receipt
---------------	----------------------------	-------------------------	---------------------	-----------	---------

## RELATED/OTHER PERMITS:

## PLACER COUNTY REQUIREMENTS



# COUNTY OF PLACER GRADING PERMIT

3091 County Center Dr.  
Auburn, CA 95603  
(530) 889-7500

DEPT OF FACILITIES SERVICES-HIDDEN FALLS

APN: 026-072-045-000

PERMIT#: DGP - 4851

## GRADING PERMIT:

### Declarations:

"The Permittee, for him or herself, his or her contractors, and employees, agrees to save, indemnify and hold harmless the County of Placer or its representative from all liabilities and claims for damages by reason of injury or death to any person or persons, or damage to property from any cause whatsoever while in, upon, or in any way connected with the work covered by this Grading Permit, and does further agree to defend the County in any claim arising out of or as a result of the work done under this permit."

"The Permittee hereby certifies that all required right-of-way and other legal requirements for the construction of all improvements associated with this Project, including construction permits, written consents, and rights of entry, have been acquired prior to approval of these plans. Permittee certifies that documentation to substantiate this certification has been submitted to Placer County. Permittee shall hold Placer County harmless in the event the above rights are not obtained or are disputed. Permittee hereby acknowledges and agrees that undiscovered errors and omissions or other revisions required by actual field conditions shall be corrected at the Permittee's expense as discovered."

As used in this Declaration, "Permittee" shall include the Property Owner and/or Permittee, Permittee's successors and assigns and Permittee's authorized agent(s).

The undersigned hereby certifies that he or she has the legal authority to execute this Declaration on behalf of the Permittee, and to bind Permittee to the terms and conditions stated herein.

The undersigned hereby acknowledges that he or she has read this application and states that the above is correct and agrees to comply with all County Ordinances and State laws, and the regulations of the State Department of Industrial Relations and Industrial Accident Commission relating to the character of work, equipment and labor personnel involved in the project.

This permit is not valid until the party to whom the permit is issued shall, whenever required by law, secure the written consent to work from any other public agency having jurisdiction.

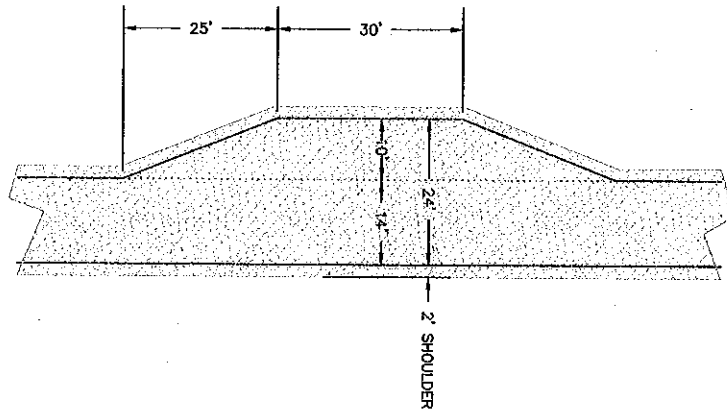
Applicant Signature: \_\_\_\_\_

Date: 3/30/2011

Approved: \_\_\_\_\_

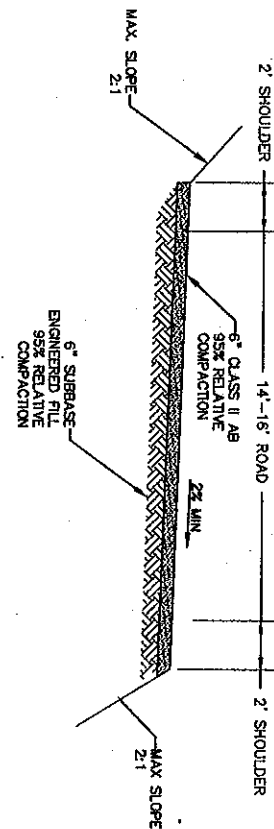
Date: 3/30/11

Placer County



TYPICAL TURNOUT DETAIL - PLAN  
NTS

- NOTES:
1. ROADS SHALL BE 14-FOOT WIDTH PLUS 2-FOOT SHOULDERS WITH PERIODIC TURNOUTS NO MORE THAN 400' APART.
  2. ROADS SHALL BE WIDENED TO 16-FEET WITH 2-FOOT SHOULDERS AT CULVERT CROSSINGS, AND TURNOUTS SHALL BE PROVIDED AT THE UPLAND SIDE OF EACH CULVERT CROSSING.



TYPICAL ACCESS ROAD DETAIL - CROSS SECTION  
NTS

## HIDDEN FALLS PARK - ROAD DETAILS FIRE TURNOUTS



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO  
CORPS OF ENGINEERS  
1325 J STREET  
SACRAMENTO CA 95814-2922

April 16, 2012

RECEIVED  
FACILITY SERVICES  
2012 APR 18 PM 3:51

Regulatory Division (SPK-2009-01275)

Mr. Andy Fisher  
Placer County  
11476 C Avenue  
Auburn, California 95603-2702

Dear Mr. Fisher:

We are responding to your March 29, 2012 request for re-verification of a Department of the Army permit for the Hidden Falls Regional Park project. This approximately 979-acre project involves activities, including discharges of dredged or fill material, in waters of the United States to create a multiple use trail system and associated recreational facilities with the Hidden Falls Regional Park. The project is located on or near Coon Creek, in Sections 15-16 and 20-21 of Township 13 North, Range 7 East, Mount Diablo Baseline and Meridian, Latitude 38.96°, Longitude -121.19°, Placer County, California.

Based on the information you provided, the proposed activity, resulting in the permanent loss of approximately 0.036 acres of streams and temporary impacts to approximately 0.015 acres of streams, is authorized by Nationwide Permit Number 42. This verification supersedes your previous NWP 42 verification, dated January 26, 2011. Your work must comply with the general terms and conditions listed on the enclosed Nationwide Permit information sheets and the following special conditions:

Special Conditions

1. To ensure your project complies with the Federal Endangered Species Act, you must implement all of the mitigating measures identified in the enclosed U.S. Fish and Wildlife Service letter of concurrence (Number 81420-2011-I-0746-1, dated August 24, 2011), including those ascribed to the Corps therein. If you are unable to implement any of these measures, you must immediately notify the Corps and the U.S. Fish and Wildlife Service so we may consult as appropriate, prior to initiating the work, in accordance with Federal law.

2. You shall comply with all terms and condition of the enclosed May 16, 2011 Section 401 Water Quality Certification.

3. You shall develop a final comprehensive mitigation and monitoring plan, which must be approved by the Army Corps of Engineers prior to initiation of construction activities. The plan shall include mitigation location, vegetation plans, including target species to be planted, and final success criteria, presented in the format of the Sacramento District's Habitat Mitigation and Monitoring Proposal Guidelines, dated December 30, 2004. The purpose of this requirement is to insure replacement of functions and values of the aquatic environment that would be lost through project implementation.

4. You must allow representatives from the Corps of Engineers to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

5. To document pre- and post-project construction conditions, you shall submit pre-construction photos of each crossing of a water of the U.S. prior to project implementation and post-construction photos of each crossing within 30 days after project completion.

6. To mitigate impacts to the aquatic resources and associated habitat, you shall plant and maintain regionally appropriate native riparian trees at a 3:1 replacement ratio along any stream reaches temporarily affected by the project. Willows, oaks, alders, cottonwoods, and/or sycamores shall be planted to shade the entire stream reach.

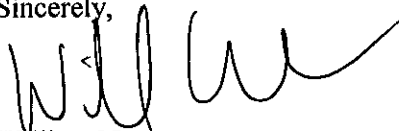
You must sign the enclosed Compliance Certification and return it to this office within 30 days after completion of the authorized work.

This verification is valid for two years or until the NWP is modified, reissued, or revoked, whichever comes first. All of the existing NWPs are scheduled to be modified, reissued, or revoked on March 18, 2017. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. Failure to comply with the General Conditions of this NWP, or the project-specific Special Conditions of this authorization, may result in the suspension or revocation of your authorization.

We appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the customer survey on our website under *Customer Service Survey*.

Please refer to identification number SPK-2009-01275 in any correspondence concerning this project. If you have any questions, please contact Mr. William Ness at our California North Branch Office, 1325 J Street, Room 1350, Sacramento, California 95814, email [William.W.Ness@usace.army.mil](mailto:William.W.Ness@usace.army.mil), or telephone 916-557-5268. For more information regarding our program, please visit our website at [www.spk.usace.army.mil/regulatory.html](http://www.spk.usace.army.mil/regulatory.html).

Sincerely,



William Ness  
Senior Project Manager,  
California North Branch

Enclosures

Copies Furnished without enclosures:

Ms. Sarah Bennet, AECOM, 2020 L Street, Sacramento, California 95811-4267

Mr. Skyler Anderson, Central Valley Regional Water Quality Control Board, 11020 Sun Center Drive #200,  
Rancho Cordova, California 95670-6114

Mr. Jason Hanni, U.S. Fish and Wildlife Service, 2800 Cottage Way, Room W-2605, Sacramento, California  
95825-1846



# Nationwide Permit Summary

33 CFR Part 330; Issuance of Nationwide Permits - March 19, 2012

U.S. Army Corps of Engineers  
Sacramento District

**42. Recreational Facilities.** Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of recreational facilities. Examples of recreational facilities that may be authorized by this NWP include playing fields (e.g., football fields, baseball fields), basketball courts, tennis courts, hiking trails, bike paths, golf courses, ski areas, horse paths, nature centers, and campgrounds (excluding recreational vehicle parks). This NWP also authorizes the construction or expansion of small support facilities, such as maintenance and storage buildings and stables that are directly related to the recreational activity, but it does not authorize the construction of hotels, restaurants, racetracks, stadiums, arenas, or similar facilities.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States, including the loss of no more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in minimal adverse effects. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

**Notification.** The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 31, (Section 404))

## A. Regional Conditions

### 1. Regional Conditions for California, excluding the Tahoe Basin

<http://www.spk.usace.army.mil/organizations/cespk-so/regular/nwp/2012-nwps/2012-NWP-RC-CA.pdf>

### 2. Regional Conditions for Nevada, including the Tahoe Basin

<http://www.spk.usace.army.mil/organizations/cespk-so/regular/nwp/2012-nwps/2012-NWP-RC-NV.pdf>

### 3. Regional Conditions for Utah

<http://www.spk.usace.army.mil/organizations/cespk-so/regular/nwp/2012-nwps/2012-NWP-RC-UT.pdf>

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## 4. Regional Conditions for Colorado.

<http://www.spk.usace.army.mil/organizations/cespk-so/regular/nwp/2012-nwps/2012-NWP-RC-CO.pdf>

### B. Nationwide Permit General Conditions

**Note:** To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer.

Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR §§ 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR § 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

#### 1. Navigation.

- ☐ (a) No activity may cause more than a minimal adverse effect on navigation.
- ☐ (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
- ☐ (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

- ☐ 2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

- ☐ 13. **Removal of Temporary Fills.** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated as appropriate.

- ☐ 14. **Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

- ☐ 15. **Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

- ☐ 16. **Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

- ☐ 17. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

#### 18. Endangered Species.

- ☐ (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

- ☐ (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

- ☐ (c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-

construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification of the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NHPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "Incidental Take" provisions, etc.) from the U.S. FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at <http://www.fws.gov> or <http://www.nmfs.gov> and <http://www.fishbase.org> and <http://www.fishbase.org> respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

## 20. Historic Properties.

(a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of

Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(e)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

- (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).
- (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.
- (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.
- (1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.
- (2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.
- (3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) - (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).
- (4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.
- (5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as



compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

- ☐ (d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.
- ☐ (e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

- ☐ (f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

- ☐ (g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and

property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

- ☐ 30. **Compliance Certification.** Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

- ☐ (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
- ☐ (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.30(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
- ☐ (c) The signature of the permittee certifying the completion of the work and mitigation.

### ☐ 31. **Pre-Construction Notification.**

- ☐ (a) **Timing.** Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

- ☐ (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

- ☐ (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.50(2).
- ☐ (b) **Contents of Pre-Construction Notification:** The PCN must be in writing and include the following information:

- ☐ (1) Name, address and telephone numbers of the prospective permittee;
- ☐ (2) Location of the proposed project;
- ☐ (3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity; in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain

"When the structures or work authorized by this nationwide permit are still in existence at the time the

sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans).

- (4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate.

- (5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

- (6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

- (7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

- (c) Form of Pre-Construction Notification: the standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

- (d) Agency Coordination:

- (1) The district engineer will consider any comments from Federal and state agencies

concerning the proposed activity's compliance with the terms and conditions of the NWP's and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

- (2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so connected by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWP's, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

- (3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

- (4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

### C. District Engineer's Decision

- 1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. For a linear project, this determination will include an evaluation of the individual crossings to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to intermittent or ephemeral streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 39, 40, 42, 43, 44, 50, 51 or 52, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in minimal adverse effects. When making minimal effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

- 2. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the

district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

- 3. If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (a) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (c) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period, with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

### D. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other Federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

### E. Definitions

**Best management practices (BMPs):** Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

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1.\* When pre-construction notification (PCN) is required, the permittee shall notify the U.S. Army Corps of Engineers, Sacramento District (Corps) in accordance with General Condition 31 using either the South Pacific Division Preconstruction Notification (PCN) Checklist or a signed application form (ENG Form 4345) with an attachment providing information on compliance with all of the General and Regional Conditions. In addition, the PCN shall include:

- a. A written statement describing how the activity has been designed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States;
- b. Drawings, including plan and cross-section views, clearly depicting the location, size and dimensions of the proposed activity, as well as the location of delineated waters of the U.S. on the site. The drawings shall contain a title block, legend and scale, amount (in cubic yards) and area (in acres) of fill in Corps jurisdiction, including both permanent and temporary fills/structures. The ordinary high water mark or, if tidal waters, the mean high water mark and high tide line, should be shown (in feet), based on National Geodetic Vertical Datum (NGVD) or other appropriate referenced elevation. All drawings for activities located within the boundaries of the Los Angeles District shall comply with the September 15, 2010 Special Public Notice: *Map and Drawing Standards for the Los Angeles District Regulatory Division*, (available on the Los Angeles District Regulatory Division website at: [www.spl.usace.army.mil/regulatory/](http://www.spl.usace.army.mil/regulatory/)); and
- c. Numbered and dated pre-project color photographs showing a representative sample of waters proposed to be impacted on the site, and all waters of the U.S. proposed to be avoided on and immediately adjacent to the activities site. The compass angle and position of each photograph shall be identified on the plan-view drawing(s) required in subpart b of this Regional Condition.

2. For all Nationwide Permits (NWP), the permittee shall submit a PCN in accordance with General Condition 31 and Regional Condition 1, in the following circumstances:

- a. For all activities that would result in the discharge of fill material into any vernal pool;
- b. For any activity in the Primary and Secondary Zones of the Legal Delta, the Sacramento River, the San Joaquin River, and the immediate tributaries of these waters;
- c. For all crossings of perennial waters and intermittent waters;
- d. For all activities proposed within 100 feet of the point of discharge of a known natural spring source, which is any location where ground water emanates from a point in the ground excluding seeps or other discharges which lack a defined channel; and

e.\* For all activities located in areas designated as Essential Fish Habitat (EFH) by the Pacific Fishery Management Council (i.e., all tidally influenced areas - Federal Register dated March 12, 2007 (72 FR 11092)), in which case the PCN shall include an EFH assessment and extent of proposed impacts to EFH. Examples of EFH habitat assessments can be found at: <http://www.swr.noaa.gov/efh.htm>.

3. The permittee shall record the NWP verification with the Registrar of Deeds or other appropriate official charged with the responsibility for maintaining records of title to or interest in real property for areas (1) designated to be preserved as part of compensatory mitigation for authorized impacts, including any associated covenants or restrictions; or (2) where boat ramps or docks, marinas, piers, and permanently moored vessels will be constructed or placed in or adjacent to navigable waters. The recordation shall also include a map showing the surveyed location of the preserved area or authorized structure.

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4. For all waters of the U.S. proposed to be avoided on a site, unless determined to be impracticable by the Corps, the permittee shall:

- a. Establish and maintain, in perpetuity, a preserve containing all avoided waters of the U.S. to ensure that the functions of the aquatic environment are protected;
- b. Place all avoided waters of the U.S. and any upland buffers into a separate parcel prior to discharging dredge or fill material into waters of the U.S., and
- c. Establish permanent legal protection for all preserve parcels, following Corps approval of the legal instrument;

If the Corps determines that it is impracticable to require permanent preservation of the avoided waters, additional mitigation may be required in order to compensate for indirect impacts to the waters of the U.S.

5. For all temporary fills, the PCN shall include a description of the proposed temporary fill, including the type and amount of material to be placed, the area proposed to be impacted, and the proposed plan for restoration of the temporary fill area to pre-activities contours and conditions, including a plan for the re-vegetation of the temporary fill area, if necessary. In addition, the PCN shall include the reason(s) why avoidance of temporary impacts is not practicable.

In addition, for all activities resulting in temporary fill within waters of the U.S., the permittee shall:

- a. Utilize material consisting of clean and washed gravel. For temporary fills within waters of the U.S. supporting anadromous fisheries, spawning quality gravel shall be used, where practicable, as determined by the Corps, after consultation with appropriate Federal and state fish and wildlife agencies;
- b. Place a horizontal marker (e.g. fabric, certified weed free straw, etc.) to delineate the existing ground elevation of the waters temporarily filled during construction; and
- c. Remove all temporary fill within 30 days following completion of construction activities.

6. In addition to the requirements of General Condition 2, unless determined to be impracticable by the Corps, the following criteria shall apply to all road crossings:

- a.\* For all activities in waters of the U.S. that are suitable habitat for Federally-listed fish species, the permittee shall design all road crossings to ensure that the passage and/or spawning of fish is not hindered. In these areas, the permittee shall employ bridge designs that span the stream or river, including pier- or pile-supported spans, or designs that use a bottomless arch culvert with a natural stream bed;
- b. Road crossings shall be designed to ensure that no more than minor impacts would occur to fish and wildlife passage or expected high flows, following the criteria listed in Regional Condition 6(a). Culverted crossings that do not utilize a bottomless arch culvert with a natural stream bed may be authorized for waters that do not contain suitable habitat for Federally listed fish species; if it can be demonstrated and is specifically determined by the Corps, that such crossing will result in no more than minor impacts to fish and wildlife passage or expected high flows;

c. No construction activities shall occur within standing or flowing waters. For ephemeral or intermittent streams, this may be accomplished through construction during the dry season. In perennial

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streams, this may be accomplished through dewatering of the work area. Any proposed dewatering plans must be approved, in writing, by the Corps prior to commencement of construction activities; and

- d. All bank stabilization activities associated with a road crossing shall comply with Regional Condition 19.

In no case shall stream crossings result in a reduction in the pre-construction bankfull width or depth of perennial streams or negatively alter the flood control capacity of perennial streams.

7.\* For activities in which the Corps designates another Federal agency as the lead for compliance with Section 7 of the Endangered Species Act (ESA) of 1973 as amended, pursuant to 50 CFR Part 402.07, Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act (EFH), pursuant to 50 CFR 600.920(b) and/or Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, pursuant to 36 CFR 800.2(a)(2), the lead Federal agency shall provide all relevant documentation to the Corps demonstrating any previous consultation efforts, as it pertains to the Corps Regulatory permit area (for Section 7 and EFH compliance) and the Corps Regulatory area of potential effect (APE) (for Section 106 compliance). For activities requiring a PCN, this information shall be submitted with the PCN. If the Corps does not designate another Federal agency as the lead for ESA, EFH and/or NHPA, the Corps will initiate consultation for compliance, as appropriate.

8. For all NWP's which require a PCN, the permittee shall submit the following additional information with the compliance certificate required under General Condition 30:

- a. As-built drawings of the work conducted on the project site and any on-site and/or off-site compensatory mitigation, preservation, and/or avoidance area(s). The as-builts shall include a plan-view drawing of the location of the authorized work footprint (as shown on the permit drawings), with an overlay of the work as constructed in the same scale as the permit drawings. The drawing shall show all areas of ground disturbance, wetland impacts, structures, and the boundaries of any on-site and/or off-site mitigation or avoidance areas. Please note that any deviations from the work as authorized, which result in additional impacts to waters of the U.S., must be coordinated with the appropriate Corps office prior to impacts; and
- b. Numbered and dated post-construction color photographs of the work conducted within a representative sample of the impacted waters of the U.S., and within all avoided waters of the U.S. on and immediately adjacent to the proposed activities area. The compass angle and position of all photographs shall be similar to the pre-construction color photographs required in Regional Condition 1(c) and shall be identified on the plan-view drawing(s) required in subpart a of this Regional Condition.

9. For all activities requiring permittee responsible mitigation, the permittee shall develop and submit to the Corps for review and approval, a final comprehensive mitigation and monitoring plan for all permittee responsible mitigation prior to commencement of construction activities within waters of the U.S. The plan shall include the mitigation location and design drawings, vegetation plans, including target species to be planted, and final success criteria, presented in the format of the *Sacramento District's Habitat Mitigation and Monitoring Proposal Guidelines*, dated December 30, 2004, and in compliance with the requirements of 33 CFR 332.

10.\* The permittee shall complete the construction of any compensatory mitigation required by special condition(s) of the NWP verification before or concurrent with commencement of construction of the authorized activity, except when specifically determined to be impracticable by the Corps. When mitigation involves use of a mitigation bank or in-lieu fee program, the permittee shall submit proof of payment to the Corps prior to commencement of construction of the authorized activity.

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11. The permittee is responsible for all authorized work and ensuring that all contractors and workers are made aware and adhere to the terms and conditions of the permit authorization. The permittee shall ensure that a copy of the permit authorization and associated drawings are available and visible for quick reference at the site until all construction activities are completed.

12. The permittee shall clearly identify the limits of disturbance in the field with highly visible markers (e.g. construction fencing, flagging, silt barriers, etc.) prior to commencement of construction activities within waters of the U.S. The permittee shall maintain such identification properly until construction is completed and the soils have been stabilized. The permittee is prohibited from any activity (e.g. equipment usage or materials storage) that impacts waters of the U.S. outside of the permit limits (as shown on the permit drawings).

13. For all activities in which a PCN is required, the permittee shall notify the appropriate district office of the start date for the authorized work within 10 days prior to initiation of construction activities.

14. The permittee shall allow Corps representatives to inspect the authorized activity and any mitigation areas at any time deemed necessary to determine compliance with the terms and conditions of the NWP verification. The permittee will be notified in advance of an inspection.

15. For all activities located in the Mather Core Recovery Area in Sacramento County, as identified in the U.S. Fish and Wildlife Service's *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* dated December 15, 2005, NWP's 14, 18, 23, 29, 39, 40, 42, 43 and 44 are revoked from use in vernal pools that may contain habitat for Federally-listed threatened and/or endangered vernal pool species.

16. For activities located in the Primary or Secondary Zone of the Legal Delta, NWP's 29 and 39 are revoked.

17. For all activities within the Secondary Zone of the Legal Delta, the permittee shall conduct compensatory mitigation for unavoidable impacts within the Secondary Zone of the Legal Delta.

18. For NWP 12: Permittees shall ensure the construction of utility lines does not result in the draining of any water of the U.S., including wetlands. This may be accomplished through the use of clay blocks, bentonite, or other suitable material (as approved by the Corps) to seal the trench. For utility line trenches, during construction, the permittee shall remove and stockpile, separately, the top 6 - 12 inches of topsoil. Following installation of the utility line(s), the permittee shall replace the stockpiled topsoil on top and seed the area with native vegetation. The permittee shall submit a PCN for utility line activities in the following circumstances:

- a. The utility line crossing would result in a discharge of dredged and/or fill material into perennial waters, intermittent waters, wetlands, mudflats, vegetated shallows, riffle and pool complexes, sanctuaries and refuges or coral reefs;

- b. The utility line activity would result in a discharge of dredged and/or fill material into greater than 100 linear feet of ephemeral waters of the U.S.;

- c. The utility line installation would include the construction of a temporary or permanent access road, substation or foundation within waters of the U.S.; or

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- d. The proposed activity would not involve the restoration of all utility line trenches to pre-project contours and conditions within 30 days following completion of construction activities.

19. For NWP 13 and 14: All bank stabilization activities shall involve either the sole use of native vegetation or other bioengineered design techniques (e.g. willow plantings, root wads, large woody debris, etc.), or a combination of hard-armoring (e.g. rip-rap) and native vegetation or bioengineered design techniques, unless specifically determined to be impracticable by the Corps. The permittee shall submit a PCN for any bank stabilization activity that involves hard-armoring or the placement of any non-vegetated or non-bioengineered technique below the ordinary high water mark or, if tidal waters, the high tide line of waters of the U.S. The request to utilize non-vegetated techniques must include information on why the sole use of vegetated techniques is not practicable.

20. For NWP 23: The permittee shall submit a PCN for all activities proposed for this NWP, in accordance with General Condition 31 and Regional Condition 1. The PCN shall include a copy of the signed Categorical Exclusion document and final agency determinations regarding compliance with ESA, EFH and NHPA, in accordance with General Conditions 18 and 20 and Regional Condition 7.

21. For NWP 27: The permittee shall submit a PCN for aquatic habitat restoration, establishment, and enhancement activities in the following circumstances:

- a. The restoration, establishment or enhancement activity would result in a discharge of dredged and/or fill material into perennial waters, intermittent waters, wetlands, mudflats, vegetated shallows, riffle and pool complexes, sanctuaries and refuges or coral reefs; or
- b. The restoration, establishment or enhancement activity would result in a discharge of dredged and/or fill material into greater than 100 linear feet of ephemeral waters of the U.S.

22. For NWPs 29 and 39: The channelization or relocation of intermittent or perennial drainages is not authorized, except when, as determined by the Corps, the relocation would result in a net increase in functions of the aquatic ecosystem within the watershed.

23.\* Any requests to waive the 300 linear foot limitation for intermittent and ephemeral streams for NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51 and 52, or to waive the 500 linear foot limitation along the bank for NWP 13, must include the following:

- a. A narrative description of the stream. This should include known information on: volume and duration of flow; the approximate length, width, and depth of the waterbody and characteristics observed associated with an Ordinary High Water Mark (e.g. bed and bank, wrack line or scour marks); a description of the adjacent vegetation community and a statement regarding the wetland status of the adjacent areas (i.e. wetland, non-wetland); surrounding land use; water quality; issues related to cumulative impacts in the watershed; and; any other relevant information;
- b. An analysis of the proposed impacts to the waterbody, in accordance with General Condition 31 and Regional Condition 1;
- c. Measures taken to avoid and minimize losses to waters of the U.S., including other methods of constructing the proposed activity(s); and
- d. A compensatory mitigation plan describing how the unavoidable losses are proposed to be offset, in accordance with 33 CFR 332.

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24. For NWPs 29, 39, 40, 42, and 43: The permittee shall establish and maintain upland vegetated buffers in perpetuity, unless specifically determined to be impracticable by the Corps, next to all preserved open waters, streams and wetlands including created, restored, enhanced or preserved waters of the U.S., consistent with General Condition 23(f). Except in unusual circumstances, as determined by the Corps, vegetated buffers shall be at least 50 feet in width.

25. For NWP 46: The discharge shall not cause the loss of greater than 0.5 acres of waters of the United States or the loss of more than 300 linear feet of ditch, unless specifically waived in writing by the Corps.

26. All NWPs except 3, 6, 20, 27, 32, and 38 are revoked for activities in histosols, fens, bogs and peatlands and in wetlands contiguous with fens. Fens are defined as slope wetlands with a histic epipedon that are hydrologically supported by groundwater. Fens are normally saturated throughout the growing season, although they may not be during drought conditions. For NWPs 3, 6, 20, 27, 32, and 38, the permittee shall submit a PCN to the Corps in accordance with General Condition 31 and Regional Condition 1. This condition does not apply to NWPs 1, 2, 8, 9, 10, 11, 24, 28, 35 or 36, as these NWPs either apply to Section 10 only activities or do not authorize impacts to special aquatic sites.



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825-1846



In reply refer to:  
81420-2011-I-0746-1

AUG 24 2011

Nancy Haley  
Chief, California North Section  
U.S. Army Corps of Engineers  
Regulatory Division, Sacramento District  
650 Capitol Mall, Suite 5-200  
Sacramento, California 95814-2922

AUG 29 2011

Subject: Informal Endangered Species Consultation on the Hidden Falls Regional Park Project (Corps File Number: SPK-2009-01275), Placer County, California

Dear Ms. Haley:

This is in response to your July 6, 2011, letter and supporting documentation requesting informal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Hidden Falls Regional Park Project (proposed project) for potential effects to the federally-listed as threatened California red-legged frog (*Rana aurora draytonii*) (frog). Your request was received by the Service on July 11, 2011. You requested our concurrence with your determination that the proposed project is not likely to adversely affect the frog. Our primary concern and mandate is the protection of federally-listed species pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

We have reviewed the proposed project, including: (1) the May 2011, *Biological Assessment, Hidden Falls Regional Park*, prepared by AECOM; (2) the July 6, 2011, initiation letter from the Corps; and (3) other information available to the Service.

The proposed project consists of a natural surface multiple use trail system and associated recreation facilities within the Hidden Falls Regional Park, Placer County, California. The implementation of the proposed project will greatly expand the available trails within the Park and within Placer County, creating over 13 miles of new trails at the regional park. In addition to trail construction, the action will decommission 3.4 miles of existing ranch roads, and create 5.8 miles of new roads. The decommissioned roads will be re-vegetated using a native seed mix. Three bridges will be constructed across Coon Creek and will provide access to trails located north of the creek. Bridge 1, the eastern most bridge will be a 100-foot con/span arch bridge and will provide emergency vehicle access. Bridges 2 and 3 will be steel truss bridges measuring



**California Regional Water Quality Control Board  
Central Valley Region**

**Katherine Hart, Chair**



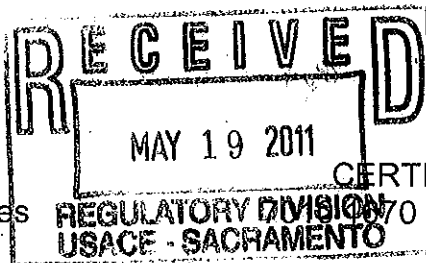
**Edmund G. Brown Jr.**  
Governor

**Linda S. Adams**  
Acting Secretary for  
Environmental Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
(916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>

16 May 2011

Andy Fisher  
Placer County, Department of Facility Services  
11476 C Avenue  
Auburn, CA 95603



CERTIFIED MAIL

70 0002 0652 6508

**CLEAN WATER ACT §401 TECHNICALLY CONDITIONED WATER QUALITY  
CERTIFICATION FOR DISCHARGE OF DREDGED AND/OR FILL MATERIALS FOR THE  
HIDDEN FALLS REGIONAL PARK PROJECT (WDID#5A31CR00305), PLACER COUNTY**

This Order responds to your 17 February 2011 application submittal for the Water Quality Certification of a park alteration project permanently impacting approximately 0.036 acre and temporarily impacting 0.015 acre of waters of the United States.

**WATER QUALITY CERTIFICATION STANDARD CONDITIONS:**

1. This Order serves as a Water Quality Certification (Certification) action that is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to §13330 of the California Water Code and §3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial Certification action shall be conditioned upon total payment of the full fee required under 23 CCR §3833, unless otherwise stated in writing by the certifying agency.
4. This Certification is valid for the duration of the described project. This Certification is no longer valid if the project (as currently described) is modified, or coverage under Section 404 of the Clean Water Act has expired.
5. All reports, notices, or other documents required by this Certification or requested by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) shall be signed by a person described below or by a duly authorized representative of that person.
  - (a) For a corporation: by a responsible corporate officer such as (1) a president, secretary, treasurer, or vice president of the corporation in charge of a principal

**California Environmental Protection Agency**

6. Placer County, Department of Facility Services shall perform surface water sampling: 1) When performing any in-water work; 2) In the event that project activities result in any materials reaching surface waters or; 3) When any activities result in the creation of a visible plume in surface waters. The following monitoring shall be conducted immediately upstream out of the influence of the project and 300 feet downstream of the active work area. Sampling results shall be submitted to this office within two weeks of initiation of sampling and every two weeks thereafter. The sampling frequency may be modified for certain projects with written permission from the Central Valley Water Board.

Parameter	Unit	Type of Sample	Frequency of Sample
Turbidity	NTU	Grab	Every 4 hours during in water work
Settleable Material	ml/l	Grab	Same as above
Visible construction related pollutants	Observations	Visual Inspections	Continuous throughout the construction period

7. Activities shall not cause turbidity increases in surface water to exceed:

- (a) where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTU;
- (b) where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU;
- (c) where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
- (d) where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
- (e) where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Except that these limits will be eased during in-water working periods to allow a turbidity increase of 15 NTU over background turbidity as measured in surface waters 300 feet downstream from the working area. In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be assessed by prior permission of the Central Valley Water Board.

8. Activities shall not cause settleable matter to exceed 0.1 ml/l in surface waters as measured in surface waters 300 feet downstream from the project.
9. The discharge of petroleum products or other excavated materials to surface water is prohibited. Activities shall not cause visible oil, grease, or foam in the work area or downstream. Placer County, Department of Facility Services shall notify the Central Valley Water Board immediately of any spill of petroleum products or other organic or earthen materials.
10. Placer County, Department of Facility Services shall notify the Central Valley Water Board immediately if the above criteria for turbidity, settleable matter, oil/grease, or foam are exceeded.



## **ADDITIONAL STORM WATER QUALITY CONDITIONS:**

Placer County, Department of Facility Services shall also satisfy the following additional storm water quality conditions:

1. During the construction phase, Placer County, Department of Facility Services must employ strategies to minimize erosion and the introduction of pollutants into storm water runoff. These strategies must include the following:
  - (a) the Storm Water Pollution Prevention Plan (SWPPP) must be prepared during the project planning and design phases and implemented, as appropriate, before construction;
  - (b) an effective combination of erosion and sediment control Best Management Practices (BMPs) must be implemented and adequately working prior to the rainy season and during all phases of construction.
2. Placer County, Department of Facility Services must minimize the short and long-term impacts on receiving water quality from the Hidden Falls Regional Park by implementing the following post-construction storm water management practices and as required by the local agency permitting the project, as appropriate:
  - (a) minimize the amount of impervious surface;
  - (b) ensure existing waters of the State (e.g., wetlands, vernal pools, or creeks) are not used as pollutant source controls and/or treatment controls;
  - (c) preserve and, where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones;
  - (d) limit disturbances of natural water bodies and natural drainage systems caused by development (including development of roads, highways, and bridges);
  - (e) identify and avoid development in areas that are particularly susceptible to erosion and sediment loss, or establish development guidance that protects areas from erosion/ sediment loss;

## **CENTRAL VALLEY WATER BOARD CONTACT:**

Skyler Anderson, Environmental Scientist  
11020 Sun Center Drive #200  
Rancho Cordova, California 95670-6114  
sanderson@waterboards.ca.gov  
(916) 464-4849

## PROJECT INFORMATION

**Application Date:** 17 February 2011

**Applicant:** Andy Fisher  
Placer County, Department of Facility Services  
11476 C Avenue  
Auburn, CA 95603

**Applicant Representatives:** Sarah Bennett  
AECOM, Inc.  
2020 L Street, Suite 400  
Sacramento, CA 95811

**Project Name:** Hidden Falls Regional Park

**Application Number:** WDID#5A31CR00305

**Type of Project:** Park expansion and alteration project

**Approximate Timeframe of Project Implementation:** Estimated start date: April 2011 and Completion: October 1, 2012

**Project Location:** Section 15, 16, 17, 19, 20, 21, 22, 29, 20, Township 13 North, Range 7 East, MDB&M. Latitude: N/A and Longitude: N/A

**County:** Placer

**Receiving Water(s) (hydrologic unit):** Unnamed ephemeral and intermittent drainages and irrigation ditches which are tributaries to Coon Creek, Sacramento Hydrologic Basin, Valley-American Hydrologic Unit #519.22, Pleasant Grove HSA

**Water Body Type:** Wetlands, Streambed

**Designated Beneficial Uses:** The *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009 (Basin Plan) has designated beneficial uses for surface and ground waters within the region. Beneficial uses that could be impacted by the project include, but are not limited to: Municipal and Domestic Water Supply (MUN); Agricultural Supply (AGR); Industrial Supply (IND); Hydropower Generation (POW); Groundwater Recharge, Water Contact Recreation (REC-1); Non-Contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); and Wildlife Habitat (WILD). A comprehensive and specific list of the Beneficial Uses applicable for the project area can be found at [http://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/](http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/)

**303(d) List of Water Quality Limited Segments:** None.

The most recent list of approved water quality limited segments can be found at: [http://www.waterboards.ca.gov/water\\_issues/programs/tmdl/integrated2010.shtml](http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml)

**Project Description (purpose/goal):** The project consists of a natural surface multi-use trail system and recreational facilities within Hidden Falls Regional Park. The project will occur

conduct turbidity and settleable matter testing during in-water work, stopping work if the Basin Plan criteria are exceeded or are observed.

**Fill/Excavation Area:** Approximately 499.8 cubic yards of aggregate base, culvert material, engineered fill, rip rap, and rock will be placed into streambed and ditch.

**Dredge Volume:** None

**U.S. Army Corps of Engineers Permit Number:** Nationwide Permit 3 & 42

**Department of Fish and Game Streambed Alteration Agreement:** Placer County, Department of Facility Services applied for a Streambed Alteration Agreement on 9 February 2011.

**Possible Listed Species:** Central Valley fall/late-fall run Chinook salmon, Sacramento splittail, Hardhead, California red-legged frog, Foothill yellow-legged frog, Northwestern pond turtle, Cooper's hawk, Sharp-shinned hawk, Golden eagle, Yellow-breasted chat, Yellow warbler, White-tailed Loggerhead shrike, Ringtail, Townsend's big-eared bat

**Status of CEQA Compliance:** Placer County approved the Environmental Impact Report and filed a Notice of Determination on 29 01 2010 (State Clearinghouse Number 2007062084).

As a Responsible Agency under California Environmental Quality Act (CEQA), the Central Valley Water Board reviewed the Environmental Impact Report and found that impacts to water quality were adequately addressed. Through implementation of Low Impact Development measures and mitigation at a minimum 1:1 ratio level, impacts to water quality will be mitigated to a less than significant level. Mitigation for impacts to water quality is discussed in the "Proposed Mitigation to Address Concerns" section above, and the "Compensatory Mitigation" section below.

With regard to the remaining impacts identified in the Environmental Impact Report, the corresponding mitigation measures proposed are within the responsibility and jurisdiction of another public agency, and not within the jurisdiction of the Central Valley Water Board.

**Compensatory Mitigation:** The Central Valley Water Board is not requesting compensatory mitigation for this project.

**Application Fee Provided:** Total fees of \$4,019.00 have been submitted to the Central Valley Water Board as required by 23 CCR §3833b (3) (A) and by 23 CCR §2200(e).

## COMPLIANCE CERTIFICATION

**Permit File Number:** SPK-2009-01275

**Nationwide Permit Number:**

**Permittee:** Andy Fisher  
Placer County  
11476 C Avenue  
Auburn, California 95603-2702

**County:** Placer

**Date of Verification:** April 12, 2012

Within 30 days after completion of the activity authorized by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers  
Sacramento District  
Regulatory Division  
1325 J Street, Room 1350  
Sacramento, CA 95814-2922

*DLL-CESPK-RD-Compliance@usace.army.mil*

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of the permit your authorization may be suspended, modified, or revoked. If you have any questions about this certification, please contact the Corps of Engineers.

\* \* \* \* \*

***I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.***

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date



# California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair



Edmund G. Brown Jr.  
Governor

RECEIVED  
FACILITY SERVICES  
2011 MAY 17 PM 1:35

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
(916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>

Linda S. Adams  
Acting Secretary for  
Environmental Protection

16 May 2011

Andy Fisher  
Placer County, Department of Facility Services  
11476 C Avenue  
Auburn, CA 95603

CERTIFIED MAIL  
7010 1670 0002 0652 6508

## **CLEAN WATER ACT §401 TECHNICALLY CONDITIONED WATER QUALITY CERTIFICATION FOR DISCHARGE OF DREDGED AND/OR FILL MATERIALS FOR THE HIDDEN FALLS REGIONAL PARK PROJECT (WDID#5A31CR00305), PLACER COUNTY**

This Order responds to your 17 February 2011 application submittal for the Water Quality Certification of a park alteration project permanently impacting approximately 0.036 acre and temporarily impacting 0.015 acre of waters of the United States.

### **WATER QUALITY CERTIFICATION STANDARD CONDITIONS:**

1. This Order serves as a Water Quality Certification (Certification) action that is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to §13330 of the California Water Code and §3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial Certification action shall be conditioned upon total payment of the full fee required under 23 CCR §3833, unless otherwise stated in writing by the certifying agency.
4. This Certification is valid for the duration of the described project. This Certification is no longer valid if the project (as currently described) is modified, or coverage under Section 404 of the Clean Water Act has expired.
5. All reports, notices, or other documents required by this Certification or requested by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) shall be signed by a person described below or by a duly authorized representative of that person.
  - (a) For a corporation: by a responsible corporate officer such as (1) a president, secretary, treasurer, or vice president of the corporation in charge of a principal

**California Environmental Protection Agency**

business function; (2) any other person who performs similar policy or decision-making functions for the corporation; or (3) the manager of one or more manufacturing, production, or operating facilities if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- (b) For a partnership or sole proprietorship: by a general partner or the proprietor.
- (c) For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official.

6. Any person signing a document under Standard Condition number 5 shall make the following certification, whether written or implied:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

#### **ADDITIONAL TECHNICALLY CONDITIONED CERTIFICATION CONDITIONS:**

In addition to the above standard conditions, Placer County, Department of Facility Services shall satisfy the following:

1. Placer County, Department of Facility Services shall notify the Central Valley Water Board in writing 7 days in advance of the start of any in-water activities. The notification should include the name of the project and the WDID number, and should be sent to the Central Valley Water Board contact person shown on page five of this Certification.
2. Except for activities permitted by the U.S. Army Corps under §404 of the Clean Water Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.
3. All areas disturbed by project activities shall be protected from washout or erosion.
4. Placer County, Department of Facility Services shall maintain a copy of this Certification and supporting documentation (Project Information Sheet) at the Project site during construction for review by site personnel and agencies. All personnel (employees, contractors, and subcontractors) performing work on the proposed project shall be adequately informed and trained regarding the conditions of this Certification.
5. All temporarily affected areas will be restored to pre-construction contours and conditions upon completion of construction activities.

6. Placer County, Department of Facility Services shall perform surface water sampling: 1) When performing any in-water work; 2) In the event that project activities result in any materials reaching surface waters or; 3) When any activities result in the creation of a visible plume in surface waters. The following monitoring shall be conducted immediately upstream out of the influence of the project and 300 feet downstream of the active work area. Sampling results shall be submitted to this office within two weeks of initiation of sampling and every two weeks thereafter. The sampling frequency may be modified for certain projects with written permission from the Central Valley Water Board.

Parameter	Unit	Type of Sample	Frequency of Sample
Turbidity	NTU	Grab	Every 4 hours during in water work
Settleable Material	ml/l	Grab	Same as above
Visible construction related pollutants	Observations	Visual Inspections	Continuous throughout the construction period

7. Activities shall not cause turbidity increases in surface water to exceed:

- (a) where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTU;
- (b) where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU;
- (c) where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
- (d) where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
- (e) where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Except that these limits will be eased during in-water working periods to allow a turbidity increase of 15 NTU over background turbidity as measured in surface waters 300 feet downstream from the working area. In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be assessed by prior permission of the Central Valley Water Board.

8. Activities shall not cause settleable matter to exceed 0.1 ml/l in surface waters as measured in surface waters 300 feet downstream from the project.
9. The discharge of petroleum products or other excavated materials to surface water is prohibited. Activities shall not cause visible oil, grease, or foam in the work area or downstream. Placer County, Department of Facility Services shall notify the Central Valley Water Board immediately of any spill of petroleum products or other organic or earthen materials.
10. Placer County, Department of Facility Services shall notify the Central Valley Water Board immediately if the above criteria for turbidity, settleable matter, oil/grease, or foam are exceeded.

11. Placer County, Department of Facility Services shall comply with all California Department of Fish and Game requirements for the project.
12. The use of netting material (e.g., monofilament-based erosion blankets) that could trap aquatic dependent wildlife is prohibited within the Project Area.
13. Placer County, Department of Facility Services must obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board for any project disturbing an area of 1 acre or greater.
14. The Conditions in this Certification are based on the information in the attached "Project Information." If the information in the attached Project Information Sheet is modified or the project changes, this Certification is no longer valid until amended by the Central Valley Water Board.
15. The mitigation measures specified in the approved Environmental Impact Report for the project, as they pertain to biology, hydrology and water quality impacts, are included in this Certification, as required by California Public Resource Code Section 21081.6 and CEQA Guidelines, California Code of Regulations Section 15097.
16. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under State and Federal law. The applicability of any State law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with this Order.
  - (a) If Placer County, Department of Facility Services or a duly authorized representative of the project fails or refuses to furnish technical or monitoring reports, as required under this Order, or falsifies any information provided in the monitoring reports, the applicant is subject to civil, for each day of violation, or criminal liability.
  - (b) In response to a suspected violation of any condition of this Order, the Central Valley Water Board may require Placer County, Department of Facility Services to furnish, under penalty of perjury, any technical or monitoring reports the Central Valley Water Board deems appropriate, provided that the burden, including cost of the reports, shall be in reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
  - (c) Placer County, Department of Facility Services shall allow the staff(s) of the Central Valley Water Board, or an authorized representative(s), upon the presentation of credentials and other documents, as may be required by law, to enter the project premises for inspection, including taking photographs and securing copies of project-related records, for the purpose of assuring compliance with this Certification and determining the ecological success of the project.
17. Placer County, Department of Facility Services shall provide a Notice of Completion (NOC) no later than 30 days after the project completion. The NOC shall demonstrate that the project has been carried out in accordance with the project's description (and any amendments approved). The NOC shall include a map of the project location(s), including final boundaries of any in situ restoration area(s), if appropriate, and representative pre and post construction photographs. Each photograph shall include a descriptive title, date taken, photographic site, and photographic orientation.



## **ADDITIONAL STORM WATER QUALITY CONDITIONS:**

Placer County, Department of Facility Services shall also satisfy the following additional storm water quality conditions:

1. During the construction phase, Placer County, Department of Facility Services must employ strategies to minimize erosion and the introduction of pollutants into storm water runoff. These strategies must include the following:
  - (a) the Storm Water Pollution Prevention Plan (SWPPP) must be prepared during the project planning and design phases and implemented, as appropriate, before construction;
  - (b) an effective combination of erosion and sediment control Best Management Practices (BMPs) must be implemented and adequately working prior to the rainy season and during all phases of construction.
2. Placer County, Department of Facility Services must minimize the short and long-term impacts on receiving water quality from the Hidden Falls Regional Park by implementing the following post-construction storm water management practices and as required by the local agency permitting the project, as appropriate:
  - (a) minimize the amount of impervious surface;
  - (b) ensure existing waters of the State (e.g., wetlands, vernal pools, or creeks) are not used as pollutant source controls and/or treatment controls;
  - (c) preserve and, where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones;
  - (d) limit disturbances of natural water bodies and natural drainage systems caused by development (including development of roads, highways, and bridges);
  - (e) identify and avoid development in areas that are particularly susceptible to erosion and sediment loss, or establish development guidance that protects areas from erosion/ sediment loss;


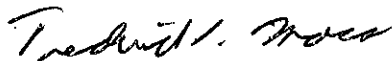
## **CENTRAL VALLEY WATER BOARD CONTACT:**

Skyler Anderson, Environmental Scientist  
11020 Sun Center Drive #200  
Rancho Cordova, California 95670-6114  
sanderson@waterboards.ca.gov  
(916) 464-4849

## **WATER QUALITY CERTIFICATION:**

I hereby issue an Order certifying that any discharge from the Placer County, Department of Facility Services, Hidden Falls Regional Park (WDID#5A31CR00305) will comply with the applicable provisions of §301 ("Effluent Limitations"), §302 ("Water Quality Related Effluent Limitations"), §303 ("Water Quality Standards and Implementation Plans"), §306 ("National Standards of Performance"), and §307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Resources Control Board Water Quality Order No. 2003-0017 DWQ "Statewide General Waste Discharge Requirements For Dredged Or Fill Discharges That Have Received State Water Quality Certification (General WDRs)".

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with Placer County, Department of Facility Services's project description and the attached Project Information Sheet, and (b) compliance with all applicable requirements of the *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009.



Pamela C. Creedon  
Executive Officer

Enclosure: Project Information

cc: See enclosure, page 10

## PROJECT INFORMATION

**Application Date:** 17 February 2011

**Applicant:** Andy Fisher  
Placer County, Department of Facility Services  
11476 C Avenue  
Auburn, CA 95603

**Applicant Representatives:** Sarah Bennett  
AECOM, Inc.  
2020 L Street, Suite 400  
Sacramento, CA 95811

**Project Name:** Hidden Falls Regional Park

**Application Number:** WDID#5A31CR00305

**Type of Project:** Park expansion and alteration project

**Approximate Timeframe of Project Implementation:** Estimated start date: April 2011 and Completion: October 1, 2012

**Project Location:** Section 15, 16, 17, 19, 20, 21, 22, 29, 20, Township 13 North, Range 7 East, MDB&M. Latitude: N/A and Longitude: N/A

**County:** Placer

**Receiving Water(s) (hydrologic unit):** Unnamed ephemeral and intermittent drainages and irrigation ditches which are tributaries to Coon Creek, Sacramento Hydrologic Basin, Valley-American Hydrologic Unit #519.22, Pleasant Grove HSA

**Water Body Type:** Wetlands, Streambed

**Designated Beneficial Uses:** The *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009 (Basin Plan) has designated beneficial uses for surface and ground waters within the region. Beneficial uses that could be impacted by the project include, but are not limited to: Municipal and Domestic Water Supply (MUN); Agricultural Supply (AGR); Industrial Supply (IND); Hydropower Generation (POW); Groundwater Recharge, Water Contact Recreation (REC-1); Non-Contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); and Wildlife Habitat (WILD). A comprehensive and specific list of the Beneficial Uses applicable for the project area can be found at [http://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/](http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/)

**303(d) List of Water Quality Limited Segments:** None.

The most recent list of approved water quality limited segments can be found at: [http://www.waterboards.ca.gov/water\\_issues/programs/tmdl/integrated2010.shtml](http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml)

**Project Description (purpose/goal):** The project consists of a natural surface multi-use trail system and recreational facilities within Hidden Falls Regional Park. The project will occur

between northern Auburn and the City of Lincoln in Placer County. The project area is situated along Coon Creek and is south of the Bear River. The project will expand the trails within the Park and within Placer County, creating over 13 miles of new trails.

Three bridges will be constructed across Coon Creek. Bridge 1, the eastern most bridge, will be a 100-foot concrete arch bridge and will provide emergency vehicle access. Bridges 2 and 3 will be steel truss bridges measuring 100 feet and 114 feet in length, respectively. Bridge 2 and 3 will be used for pedestrian and equestrian use. Bridge abutments, abutments protection, and bridge wing walls will be placed outside the ordinary high water mark (OHWM) of Coon Creek. The bridges over Coon Creek were designed to avoid impacts to waters of the state.

The proposed trail and service road system will cross one ephemeral drainage, eight intermittent drainages, and two hillside irrigation ditches. Trail Bridges, Rock fords, trail culverts, or timber bridges will be constructed across drainage features to provide continuous trail tread for the new trail system.

Trail bridge crossings will be constructed at seven locations. Trail bridges will be constructed of timber, fiberglass, steel and composite material. Abutments will be constructed of concrete or timber and will be constructed outside OHWM of drainages.

Rock ford crossings will be constructed at 17 locations. Rocks will be placed in the streambed to armor the stream banks and to provide a level surface. The trail will descend to and ascend from the streambed. All rocks used for the crossing will be gathered on-site. Cumulatively, the rock ford crossings will require 65.9 cubic yards of native rock and cobble, and will result in 0.002 acre of temporary impacts and 0.008 acre of permanent impacts to waters of the United States.

Trail culvert crossings will be constructed at four locations. Trail culverts will be used and constructed in a manner similar to rock fords. Cumulatively, the trail culvert crossings will require 162 cubic yards of fill, and will result in 0.002 acre of temporary impacts and 0.005 acre of permanent impacts to waters of the United States.

Road culvert crossings will be constructed at seven locations. Cumulatively, the road culvert crossings will require 271.9 cubic yards of fill, and will result in 0.003 acre of temporary impacts and 0.023 acre of permanent impacts to waters of the United States.

Two temporary culverts will be installed in order to decommission the existing trail. Cumulatively, the temporary culverts will require 81.4 cubic yards of temporary fill, and will result in 0.008 acre of temporary impacts to waters of the United States.

The Hidden Falls Regional Park Project will result in 0.015 acre of temporary impacts and 0.036 acre of permanent impacts to waters of the United States.

**Preliminary Water Quality Concerns:** Construction activities may impact surface waters with increased turbidity and settleable matter.

**Proposed Mitigation to Address Concerns:** Placer County, Department of Facility Services will implement Best Management Practices (BMPs) to control sedimentation and erosion. All temporary affected areas will be restored to pre-construction contours and conditions upon completion of construction activities. Placer County, Department of Facility Services will

conduct turbidity and settleable matter testing during in-water work, stopping work if the Basin Plan criteria are exceeded or are observed.

**Fill/Excavation Area:** Approximately 499.8 cubic yards of aggregate base, culvert material, engineered fill, rip rap, and rock will be placed into streambed and ditch.

**Dredge Volume:** None

**U.S. Army Corps of Engineers Permit Number:** Nationwide Permit 3 & 42

**Department of Fish and Game Streambed Alteration Agreement:** Placer County, Department of Facility Services applied for a Streambed Alteration Agreement on 9 February 2011.

**Possible Listed Species:** Central Valley fall/late-fall run Chinook salmon, Sacramento splittail, Hardhead, California red-legged frog, Foothill yellow-legged frog, Northwestern pond turtle, Cooper's hawk, Sharp-shinned hawk, Golden eagle, Yellow-breasted chat, Yellow warbler, White-tailed Loggerhead shrike, Ringtail, Townsend's big-eared bat

**Status of CEQA Compliance:** Placer County approved the Environmental Impact Report and filed a Notice of Determination on 29 01 2010 (State Clearinghouse Number 2007062084).

As a Responsible Agency under California Environmental Quality Act (CEQA), the Central Valley Water Board reviewed the Environmental Impact Report and found that impacts to water quality were adequately addressed. Through implementation of Low Impact Development measures and mitigation at a minimum 1:1 ratio level, impacts to water quality will be mitigated to a less than significant level. Mitigation for impacts to water quality is discussed in the "Proposed Mitigation to Address Concerns" section above, and the "Compensatory Mitigation" section below.

With regard to the remaining impacts identified in the Environmental Impact Report, the corresponding mitigation measures proposed are within the responsibility and jurisdiction of another public agency, and not within the jurisdiction of the Central Valley Water Board.

**Compensatory Mitigation:** The Central Valley Water Board is not requesting compensatory mitigation for this project.

**Application Fee Provided:** Total fees of \$4,019.00 have been submitted to the Central Valley Water Board as required by 23 CCR §3833b (3) (A) and by 23 CCR §2200(e).

### **DISTRIBUTION LIST**

United States Army Corp of Engineers  
Sacramento District Office  
Regulatory Division  
650 Capitol Mall, Suite 5-200  
Sacramento, CA 95814-4708

United States Fish & Wildlife Service  
Sacramento Fish & Wildlife Office  
2800 Cottage Way  
Sacramento, CA 95825

Jeff Drongesen  
Department of Fish and Game  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670

Bill Jennings  
CA Sportfishing Protection Alliance  
3536 Rainier Avenue  
Stockton, CA 95204

(Electronic copy only) Bill Orme  
State Water Resources Control Board  
401 Certification and Wetlands Unit Chief

(Electronic copy only) Dave Smith  
Wetlands Section Chief (W-3)  
United States Environmental Protection Agency

Sarah Bennett  
AECOM, Inc.  
2020 L Street, Suite 400  
Sacramento, CA 95811

## **Appendix B3**

### **CEQA/NEPA Compliance Form**

#### **(California Environmental Quality Act & National Environmental Policy Act)**

Instructions: All applicants, including federal agencies, must complete the CEQA compliance section. Check the box that describes the CEQA status of the proposed project. You must also complete the documentation component and submit any surveys, and/or reports that support the checked CEQA status. NOTE: There is no page limit requirement on this form. You may use the space you need to fully describe the CEQA/NEPA status of this project.

If NEPA is applicable to your project, you must complete the NEPA section in addition to the CEQA section. Check the box that describes the NEPA status of the proposed project. Complete the documentation component and submit any surveys, and/or reports that support the NEPA status.

For both CEQA and NEPA, submittal of permits is only necessary if they contain conditions providing information regarding potential environmental impacts.

#### **CEQA STATUS**

##### **(All applicants must complete this section)**

Check the box that corresponds with the CEQA compliance for your project. The proposed action is either “Not a Project” under CEQA; is Categorical Exempt from CEQA; or requires a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report per CEQA.

---

☐ **“Not a Project” per CEQA**

1. Describe how your project is “Not a Project” per CEQA:

2. If appropriate, provide documentation to support the “Not a Project” per CEQA status.

☐ **Categorical Exemption or Statutory Exemption**

If a project is categorically exempt from CEQA, all applicants, including public agencies that provide a filed Notice of Exemption, are required to provide a clear and comprehensive description of the physical attributes of the project site, including potential and known special-status species and habitat, in order for the SNC to make a determination that the project is exempt. A particular project that ordinarily would fall under a specific category of exemption may require further CEQA review due to individual circumstances, i.e., it is within a sensitive location, has a cumulative impact, has a significant effect on the environment, is within a scenic highway, impacts an historical resource, or is on a hazardous waste site. Potential cultural/archaeological resources must be noted, but do not need to be specifically listed or mapped at the time of application submittal. Backup data informing the exemption decision, such as biological surveys, Cultural Information Center requests, research papers, etc. should accompany the full application. Applicants anticipating the SNC to file an exemption are

encouraged to conduct the appropriate surveys and submit an information request to an office of the California Historical Resources Information System (CHRIS).

1. Describe how your project complies with the requirements for claiming a Categorical or Statutory Exemption per CEQA:

2. If your organization is a state or local governmental agency, submit a signed, approved Notice of Exemption (NOE) documenting the use of the Categorical Exemption or Statutory Exemption, along with any permits, surveys, and/or reports that have been completed to support this CEQA status. The Notice of Exemption must bear a date stamp to show that it has been filed with the State Clearinghouse and/or County Clerk, as required by CEQA.

3. If your organization is a nonprofit or federal agency, there is no other California public agency having discretionary authority over your project, and you would like the SNC to prepare a NOE for your project, let us know that and provide any permits, surveys, and/or reports that have been completed to support the CEQA status.

- 
- ☐ **Negative Declaration OR**  
☐ **Mitigated Negative Declaration**

If a project requires a Negative Declaration or Mitigated Negative Declaration, then applicants must work with a qualified public agency, i.e., one that has discretionary authority over project approval or permitting, to complete the CEQA process.

1. Describe how your project complies with the requirements for the use of a Negative Declaration or a Mitigated Negative Declaration per CEQA:

2. Submit the approved Initial Study and Negative Declaration/Mitigated Negative Declaration along with any Mitigation Monitoring or Reporting Plans, permits, surveys, and/or reports that have been completed to support this CEQA status. The IS/ND/MND must be accompanied by a signed, approved Notice of Determination, which must bear a date stamp to show that it has been filed with the State Clearinghouse and/or County Clerk, as required by CEQA.



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☒ **Environmental Impact Report**

If a project requires an Environmental Impact Report, then applicants must work with a qualified public agency, i.e., one that has discretionary authority over project approval or permitting, to complete the CEQA process.

1. Describe how your project complies with the requirements for the use of an Environmental Impact Report per CEQA:

All proposed elements of this Project are included as project features studied under adopted Environmental Impact Report (EIR) SCN2007062084. Project features studied under the adopted EIR include the following items listed in the Executive Summary:

- “Equestrian facilities (e.g., horse watering facilities, hitching posts)”,
- “Support restoration of various habitats within the park”, and
- “Use of the Park for grazing, educational classes, camps, and field trips”

2. Submit the Draft and Final Environmental Impact Report along with any Mitigation Monitoring or Reporting Plans, permits, surveys, and/or reports that have been completed to support this CEQA status. The EIR documentation must be accompanied by a signed, approved Notice of Determination, which must bear a date stamp to show that it has been filed with the State Clearinghouse and/or County Clerk, as required by CEQA.

Copy of Adopted Draft and Final EIR (SCN2007062084) is attached electronically including the Mitigation and Monitoring (Section 5 of the Final EIR). Signed, approved Notice of Determination is attached in hard copy.

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**NEPA STATUS**

**(Applicable to federal applicants, some tribal organizations, and applicants receiving federal funding or conducting activities on federal lands)**

Check the box that corresponds with the NEPA compliance for your project.

☐ **Categorical Exclusion**

1. Describe how your project complies with the requirements for claiming a Categorical Exclusion per NEPA:

2. Submit the signed, approved Decision Memo and Categorical Exclusion, as well as documentation to support the Categorical Exclusion, including any permits, surveys, and/or reports that have been completed to support this NEPA status:

---

☐ **Environmental Assessment & Finding of No Significant Impact**

1. Describe how your project complies with the requirements for the use of an Environmental Assessment and Finding of No Significant Impact per NEPA:

2. Submit the signed, approved Environmental Assessment and Finding of No Significant Impact along with any permits, surveys, and/or reports that have been completed to support this NEPA status.

---

☐ **Environmental Impact Statement**

1. Describe how your project complies with the requirements for the use of an Environmental Impact Statement per NEPA:

2. Submit the Draft and approved, Final Environmental Impact Statement, along with the Record of Decision and any permits, surveys, and/or reports that have been completed to support this NEPA status.

Public Draft  
Environmental Impact Report  
Executive Summary

# Hidden Falls Regional Park Project



Prepared for:  
Placer County  
Department of Facility Services  
State Clearinghouse No. 2007062084



June 2009

EDAW | AECOM

Public Draft  
Environmental Impact Report  
Executive Summary

## Hidden Falls Regional Park Project



Prepared for:

Placer County  
Department of Facility Services  
11476 C Avenue  
Auburn, CA 95603

Attn: Andy Fisher  
(530) 889-6819

Prepared by:

EDAW  
2022 J Street  
Sacramento, CA 95811

Contact:

Debra Bishop  
Project Manager  
916/414-5818

June 2009

EDAW | AECOM

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## ACRONYMS AND ABBREVIATIONS

40 CFR	Title 40 of the Code of Federal Regulations
AATCM	Airborne Toxic Control Measure
AB	Assembly Bill
ADT	average daily traffic
AG	Agriculture
APCO	Air Pollution Control Officer
AQAP	<i>Air Quality Attainment Plan</i>
AQMDs	air quality management districts
ARB	California Air Resources Board
ASTM	American Society for Testing and Materials
ATCM	airborne toxics control measure
-B	Building Site
BACT	best available control technology for toxics
Basin Plans	water quality control plans
BMP	best management practice
BOD	biochemical oxygen demand
CAA	federal Clean Air Act
CAAA	federal Clean Air Act Amendments of 1990
CAAQS	California ambient air quality standards
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CBC	California Building Code

CCAA	California Clean Air Act
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire Protection
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH <sub>4</sub>	methane
CHABA	Committee of Hearing, Bio Acoustics, and Bio Mechanics
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	CO <sub>2</sub> equivalent
County	Placer County
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
dBA/DD	dBA per doubling of distance
dbh	diameter at breast height
DEIR	draft environmental impact report
Delta	Sacramento–San Joaquin Delta
DFG	Department of Fish and Game
DHS	Department of Health Services
DOC	California Department of Conservation
DPS	distinct population segment
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
eastbound	EB
EFH	essential fish habitat
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act of 1973
ESC	East Side Canal
ESU	evolutionary significant unit
F	Farm
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FHWA-RD-77-108	Traffic Noise Prediction Model
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration

General Plan	Placer County General Plan
GHGs	greenhouse gases
GIS	geographic information system
GLO	General Land Office
GWP	global warming potential
HAPs	hazardous air pollutants
HEPA	High Efficiency Particulate Air
Hz	Hertz
in/sec	inches per second
KOPs	Key observation points
lb/day	pounds per day
L <sub>dn</sub>	Day-Night Noise Level
L <sub>eq</sub>	Equivalent Noise Level
LESA	Land Evaluation Site Assessment
L <sub>max</sub>	Maximum Noise Level
L <sub>min</sub>	Minimum Noise Level
LOS	level of service
L <sub>x</sub>	Statistical Descriptor
M	magnitude
MACT	maximum available control technology for toxics
MCL	Maximum contaminant level
mgd	million gallons per day
MLD	Most Likely Descendant
MPN/100 ml	Most Probable Number per 100 milliliters
Mw	Moment Magnitude
N <sub>2</sub> O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NB	northbound
NCC	Natomas Cross Canal
NCIC	North Central Information Center
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NESHAP	national emissions standards for HAP
NID	Nevada Irrigation District
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO <sub>2</sub>	nitrogen dioxide
NOP	notice of preparation
NO <sub>x</sub>	oxides of nitrogen

NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OAP	<i>Ozone Attainment Plan</i>
°F	Fahrenheit
OSHA	Occupational Safety and Health Administration
ozone	photochemical smog
PAH	polycyclic aromatic hydrocarbons
Park	Hidden Falls Regional Park
PCAPCD	Placer County Air Pollution Control District
PCCP	Placer County Conservation Plan
PCEHD	Placer County Environmental Health Division
PG&E	Pacific Gas and Electric Company
Placer Legacy Program	Placer Legacy Open Space and Agricultural Preservation Program
PM <sub>10</sub>	respirable particulate matter
PM <sub>2.5</sub>	Fine particulate matter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppm	part per million
PPV	peak particle velocity
PRC	Public Resources Code
proposed project, or project	Hidden Falls Regional Park Project
RCRA	Resource Conservation and Recovery Act of 1976
RMS	root mean square
ROG	reactive organic gases
RWD	report of waste discharge
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SENL	Single Event [Impulsive] Noise Level
SFNA	Sacramento Federal Nonattainment Area
SIP	state implementation plan
SO <sub>2</sub>	sulfur dioxide
southbound	SB
SO <sub>x</sub>	oxides of sulfur
SR	State Route
SRA	Shaded riverine aquatic
SVAB	Sacramento Valley Air Basin
SWRCB	State Water Resources Control Board
T	Timberland
TAC	toxic air contaminant
TAG	Trail Advisory Group

TCM	transportation control measure
tpy	tons per year
TSS	total suspended solids
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	velocity decibels
VMT	vehicle miles traveled
VOC	volatile organic carbon
WDR	Waste Discharge Requirements
WWTP	Wastewater Treatment Plant
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
$\mu\text{in}/\text{sec}$	microinch per second

# **1.0 INTRODUCTION**

This document is a draft environmental impact report (EIR) on the proposed Hidden Falls Regional Park Project (proposed project, or project). It has been prepared by the Placer County (County) Department of Facility Services in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.). As specified in Section 15367 of the State CEQA Guidelines, the public agency that has the principal responsibility for carrying out or approving a project is the lead agency for CEQA compliance. The County is the lead agency under CEQA, because it has the principal responsibility for approving and carrying out the project and is the primary source of funding and grant recipient for funding of the proposed project. The County Planning Commission is responsible for certifying and approving the EIR for the proposed project. This document has been prepared in accordance with the County Planning Department's format for EIRs (Placer County 2006).

## **1.1 TYPE AND PURPOSE OF THE DRAFT ENVIRONMENTAL IMPACT REPORT**

### **1.1.1 TYPE OF EIR**

In accordance with Section 15161 of the State CEQA Guidelines, this document is a project EIR that examines the environmental impacts of a specific proposed project. As a project EIR, this document examines the potential environmental effects of all phases of the project: planning, construction, and operation.

### **1.1.2 PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT**

A state or local public agency must comply with CEQA when it undertakes an activity that may cause a direct physical change in the environment or a reasonably foreseeable indirect change in the environment. The County has prepared this EIR to meet the requirements of CEQA. An EIR is an informational document used to inform agency decision makers and the general public of any significant environmental effects of a project, identify feasible ways to mitigate the significant effects, and describe reasonable alternatives to the project that can reduce environmental impacts. As required by CEQA, the County will consider the information presented in the EIR when determining whether to approve the proposed project.

## **1.2 SCOPE OF THE EIR AND EFFECTS FOUND NOT TO BE SIGNIFICANT**

### **1.2.1 SCOPE AND ORGANIZATION OF THIS ENVIRONMENTAL IMPACT REPORT**

Pursuant to CEQA and the State CEQA Guidelines, a lead agency shall focus an EIR's discussion on significant environmental effects and may limit discussion on other effects to brief explanations about why they are not significant (PRC Section 21002.1, State CEQA Guidelines Section 15143). Furthermore, indication of the manner in which significant impacts can be feasibly mitigated or avoided is included among the purposes of an EIR. A determination of which impacts would be potentially significant was made for this project based on review of the information presented in the 2005 initial study prepared for the project, comments received as part of the public review process for the project, and additional research and analysis of relevant project data by environmental professionals.

### **SCOPE OF THIS ENVIRONMENTAL IMPACT REPORT**

This EIR presents an analysis of a range of environmental impact topics associated with implementation of the proposed project. The County has determined that the proposed project has the potential to result in environmental impacts on the following resources, which are addressed in detail in this EIR:

- ▶ Land Use and Agricultural Resources (Chapter 4.0)
- ▶ Soils, Geology, and Seismicity (Chapter 5.0)
- ▶ Cultural Resources (Chapter 6.0)
- ▶ Visual Resources (Chapter 7.0)
- ▶ Transportation and Circulation (Chapter 8.0)
- ▶ Air Quality (Chapter 9.0)
- ▶ Noise (Chapter 10.0)
- ▶ Hydrology and Water Quality (Chapter 11.0)
- ▶ Biological Resources (Chapter 12.0)
- ▶ Public Services and Utilities (Chapter 13.0)
- ▶ Hazardous Materials and Hazards (Chapter 14.0)

## **ORGANIZATION OF THIS DOCUMENT**

This EIR is organized as follows:

**Chapter 1.0, “Introduction,”** summarizes the purpose, need, objectives, and scope of the proposed project; describes the purpose of the EIR and provides an overview of the environmental review process for the project; discusses agency roles and authorities; and provides details on project scoping.

**Chapter 2.0, “Summary,”** summarizes the conclusions of the environmental analysis.

**Chapter 3.0, “Project Description,”** describes the project’s location; discusses the project’s background, history, and objectives; and explains the components and features of the proposed project, including construction techniques and schedule.

**Chapter 4.0, “Land Use and Agricultural Resources,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on land use, planning, and agricultural resources.

**Chapter 5.0, “Soils, Geology, and Seismicity,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on soils, geology, and seismicity and provides mitigation measures for potentially significant effects.

**Chapter 6.0, “Cultural Resources,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on cultural resources and provides mitigation measures for potentially significant effects.

**Chapter 7.0, “Visual Resources,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on aesthetics and visual resources and provides mitigation measures for potentially significant effects.

**Chapter 8.0, “Transportation and Circulation,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on traffic and transportation and provides mitigation measures for potentially significant effects.

**Chapter 9.0, “Air Quality,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on air quality and provides mitigation measures for potentially significant effects.

**Chapter 10.0, “Noise,”** describes the environmental setting, regulatory setting, and impacts of the proposed project related to noise and provides mitigation measures for potentially significant effects.

**Chapter 11.0, “Hydrology and Water Quality,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on hydrology and water quality and provides mitigation measures for potentially significant effects.



**Chapter 12.0, “Biological Resources,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on biological resources and provides mitigation measures for potentially significant effects.

**Chapter 13.0, “Public Services and Utilities,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on public services and utilities and provides mitigation measures for potentially significant effects.

**Chapter 14.0, “Hazardous Materials and Hazards,”** describes the environmental setting, regulatory setting, and impacts of the proposed project on hazardous materials and hazards and provides mitigation measures for potentially significant effects.

**Chapter 15.0, “Other CEQA Sections,”** describes the alternatives considered and eliminated for the proposed project; alternatives selected for further analysis, and the evaluation of the environmental effects of those alternatives; significant unavoidable effects on the environment; irreversible or irretrievable commitments of resources; growth-inducing effects; and cumulative impacts.

**Chapter 16.0, “Report Preparers,”** lists individuals who participated in the preparation of this EIR, presented according to organization and agency.

**Chapter 17.0, “References and Persons Consulted,”** lists the sources of information cited throughout this EIR.

## **1.2.2 EFFECTS FOUND NOT TO BE SIGNIFICANT**

Based on preliminary environmental review of the project, it was determined that the proposed project would not result in significant impacts in three resource areas. Therefore, the following resource areas do not require further analysis in this EIR:

- ▶ Population, Employment, and Housing
- ▶ Mineral Resources
- ▶ Recreation

These resource areas are described briefly below.

### **POPULATION, EMPLOYMENT, AND HOUSING**

The proposed project would not involve the construction of new homes or businesses or the extension of new roads or infrastructure serving residential or job-forming uses. It would not involve the displacement of any existing housing, including affordable housing. The proposed project would not result in the disruption or division of an established community, including low-income or minority communities. Implementation of the proposed project would occur in phases, and work would be performed by one or more crews from the California Conservation Corps, licensed contractors, volunteers, and/or County staff. These activities would generate short-term employment opportunities; however, the work would be temporary and occur over several years, with certain activities starting and stopping for shorter durations within that time period. Because of the limited number and type of jobs that would be generated and the temporary nature of those jobs, the proposed project would have very little effect on employment in the region. Therefore, the proposed project would have little to no effect on population, employment, or housing. These topics will not be discussed further in this EIR.

### **MINERAL RESOURCES**

The proposed project would not result in the loss of any known mineral resources, nor would it impede or interfere with the establishment or continuation of existing mineral extraction operations, and the project area is not delineated as a locally important mineral recovery site. It would not result in the loss of available known

mineral resources that would be of value to the region or residents of the state. Given these findings, implementation of the proposed project would have no effect with regard to mineral resources; therefore, mineral resources will not be discussed further in this EIR.

## **RECREATION**

The proposed project would provide more opportunities for recreation within the county. The majority of the project area is not currently used for recreation, and the only existing recreational use in the project vicinity is the Didion Ranch portion of Hidden Falls Regional Park (Park). The proposed facilities would connect to the Didion Ranch portion of the Park once completed and, therefore, would provide a larger trail system than currently exists. Because the proposed project involves construction of regional-park facilities, it would not cause an increase in use of any existing neighborhood or regional parks, and it has the potential to alleviate overuse of other parks in the county. The environmental effects of constructing the recreational facilities associated with the proposed project are the subject of this EIR. Additionally, the proposed project would not require the construction or expansion of other recreational facilities not discussed in this EIR. Therefore, the proposed project would have a beneficial effect on recreational opportunities within the county and create no adverse effects on other recreation resources. Given these factors, recreation will not be discussed further in this EIR.

### **1.3 DEFINITION OF BASELINE**

According to Section 15125 of the State CEQA Guidelines, baseline conditions are normally defined as the physical environmental conditions in the vicinity of the project as they exist at the time that the notice of preparation (NOP) is published. Therefore, for the purposes of this document the baseline conditions are defined as the conditions that existed in the project vicinity as of June 2007. This baseline condition was used as the basis for determining the level of significance of impacts of the proposed project.

### **1.4 SIGNIFICANCE CRITERIA**

Placer County's CEQA checklist and the environmental checklist in Appendix G of the State CEQA Guidelines were the primary sources of environmental questions considered in developing significance criteria for this EIR. Significance criteria for each resource area are listed under the impacts heading in each chapter (Chapters 4.0 through 14.0).

### **1.5 PROJECT BACKGROUND AND HISTORY**

#### **1.5.1 PROJECT BACKGROUND**

The entire Hidden Falls Regional Park, when completed, would include two adjoining properties, Spears Ranch and Didion Ranch. Together, these two adjoining parcels would make up the 1,200-acre Park. On December 23, 2003, Placer County acquired the 979-acre<sup>1</sup> Spears Ranch, and on November 5, 2004, the County acquired the 221-acre Didion Ranch through the Placer Legacy Open Space and Agricultural Conservation Program (Placer Legacy Program) for park and open space purposes. The Placer Legacy Program was created in 2000 to implement the open space and natural resource goals and policies of the *Placer County General Plan* (General Plan) and to allow the community to retain its unique natural heritage, minimize conflicts between conservation and economic development, and enhance the prosperity of current and future residents.

The Didion Ranch portion of the Park was opened to the public in October 2006 and includes approximately 7 miles of natural surface trails available for non motorized multiple-use, a concrete handicapped accessible trail, a paved access road via Mears Drive, a 50-stall paved parking lot, gravel equestrian parking area, restroom, picnic

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<sup>1</sup> The acreage for Spears Ranch has been updated from 961 acres to 979 acres based on more accurate assessor's parcel information. The project boundary has not been modified.

areas, 12,000-gallon emergency water storage tank and hydrant, helistop, informational kiosks, and directional signage.

The Placer Legacy Program and all associated actions operate under the following guidelines:

- ▶ All actions are voluntary; only willing buyers and willing sellers participate.
- ▶ The Placer Legacy Program is based on the existing General Plan and community plans and therefore does not require land-use or zoning changes.
- ▶ The program is non-regulatory; no new regulations will be adopted to meet the objectives of the program.

Presently, a number of ongoing land management and maintenance activities are being performed throughout the Hidden Falls property including establishment of shaded fuel breaks, perimeter access clearing, ranch road maintenance and stabilization, and cattle management by the former owner of the Spears Ranch.

The proposed trail system on the Spears Ranch portion of the Park is based, in part, on input from the Hidden Falls Trail Forum. Members of the Trail Forum and their affiliations are described below in Table 1-1.

<b>Table 1-1</b> <b>Hidden Falls Trail Forum Members and Affiliations</b>	
<b>Name</b>	<b>Affiliation</b>
Kathy Dombrowski	Loomis Basin Horseman's Association
Pat Gibbs	Loomis Basin Horseman's Association
Jim Haagen-Smit	IMBA/FATRAC
Kathy Haagen-Smit	IMBA/FATRAC
Doug Houston	IMBA/FATRAC
Jim Howard	California Conservation Corps/High School Cross Country Coach
Janet Peterson	Action Coalition for Equestrians
Jessica Pierce	Placer Land Trust
Clark Smith	Sun City Lincoln Hills Hiking Club
Jim Crowfoot	Sun City Lincoln Hills Hiking Club
Phil Hendricks	EDAW Trail Specialist
Sandy Spurgeon	Placer County Department of Facility Services Parks and Grounds Division
Andy Fisher	Placer County Department of Facility Services Parks and Grounds Division
Source: Placer County 2008	

## 1.5.2 HISTORY OF ENVIRONMENTAL REVIEW AND AREAS OF CONTROVERSY

In September 2004, a mitigated negative declaration was adopted for the Didion Ranch portion of the Park to satisfy the requirements of CEQA. Therefore, existing uses on the Didion Ranch portion of the Park are not included as part of the proposed project in this EIR. However, because expansion of the Didion Ranch parking area and relocation of the existing helistop are modifications to existing uses within the Park, they will be covered in this EIR. In 2006, the County initiated the environmental review process for the proposed project and prepared a preliminary initial study.

To further evaluate potential significant environmental effects associated with the proposed project, the County decided to prepare an EIR for the project pursuant to CEQA. The County issued the NOP on June 16, 2007, to inform public agencies and the general public of its intention to prepare an EIR on the proposed project. The NOP included a brief project description, a summary of the scoping and public-review process, and an outline of the probable environmental impacts of the proposed project. The NOP was mailed to 613 property owners in the vicinity of the Park. The County held a public scoping and informational meeting on June 28, 2007, in Auburn, California. The comments presented at the meeting were used by the County in determining the scope and content of this EIR. Appendix A of this EIR contains a copy of the NOP.

## COMMENTS AND AREAS OF CONTROVERSY

The following list presents the main topics of concern raised during the NOP scoping process and the chapters of this EIR in which these issues are addressed:

- ▶ Traffic and safety along Garden Bar Road (Chapter 8.0)
- ▶ Increased risk of wildfire (Chapter 14.0)
- ▶ Public safety related to hunting (Chapter 14.0)

As provided in law, CEQA analyses focus on the physical environmental effects of a project, not the social or economic effects, unless the social and economic effects lead indirectly to a physical change in the environment (State CEQA Guidelines Section 15064[e]). The analyses included in Chapters 4.0 through 14.0 of this EIR address both direct and indirect effects related to the potential physical effects of the project. Comments that address management issues (e.g., trespassing, illegal activity) are discussed in Chapter 3.0, "Project Description."

In addition to the CEQA scoping process, County staff presented information on the proposed project and received comments at 13 Municipal Advisory Council meetings throughout western Placer County in the summer and fall of 2007. The proposed project was generally well received by the Municipal Advisory Council members with questions predominantly concerning the timing of Park availability to the public and the nature of amenities to serve respective user groups. Questions and comments at the Rural Lincoln Municipal Advisory Council included concerns similar to those expressed during the CEQA scoping process.

## 1.6 DEFINITION OF TERMS

This EIR uses several standard terms as follows:

- ▶ *Reservation-based Event* is an organized function consistent with passive recreation and/or educational purposes conducted in the Park involving fewer than 200 people on-site at a given time, not including regular use of the Park. Reservation-based events would be regulated by the Placer County Parks Division Reservation System. Reservation-based events are also differentiated from daily use and would be held by groups applying for a reserved portion of the Park. The County would provide 2 weeks notification to CalFire of any events that would have greater than 30 vehicles and/or between 100 and 200 participants. Daily use groups not requesting reserved portions of the Park would not be considered events. The number of participants would, however, be restricted as a result of parking limitations.
- ▶ *Large event* is an organized function conducted within the Park involving more than 200 people on-site at any given time, not including regular use of the Park. Size, timing, duration, and other variables related to these events are not known at this time, therefore, consistent with other County Park operations, these would be required to obtain a Temporary Event Permit from the County and would undergo separate environmental review prior to authorization of the large event. Parking would also be a limiting factor for large events.
- ▶ *Didion Ranch parking area expansion* includes expansion of the existing parking area on the Didion Ranch portion of the Park from 55 parking spaces (i.e., 50 for cars, five for trucks and trailers) to 82 (i.e., up to 25

additional paved stalls and 12 additional truck and trailer spaces), and relocation of the existing helistop adjacent to the parking area immediately south of the existing helistop.

- ▶ *Proposed project* is the set of actions proposed to be carried out in Hidden Falls Regional Park Project, which would involve improvement of access, the Didion Ranch parking area expansion, construction and maintenance of multiple-use, natural-surface trails, and implementation of other recreational facilities within the Spears Ranch portion of Hidden Falls Regional Park.
- ▶ *Park* is Hidden Falls Regional Park (Spears Ranch and Didion Ranch).
- ▶ *Project area* is the 979-acre Spears Ranch portion of the Park, Garden Bar Road from Mt. Pleasant Road to the Park entrance, and the parking area in the Didion Ranch portion of the Park.
- ▶ *No impact* means no change from existing conditions.
- ▶ *Less-than-significant impact* means no substantial adverse change in the physical environment. (No mitigation measures are needed.)
- ▶ *Potentially significant impact* means a potential effect that may cause a substantial adverse change in the environment. (Mitigation is recommended, because potentially significant impacts are treated in the same way as significant impacts in the CEQA process.)
- ▶ *Significant impact* means a substantial adverse change in the physical environment. (Consideration of feasible mitigation is required.)
- ▶ *Significant and unavoidable impact* means a substantial adverse change in the physical environment that cannot feasibly be avoided, even with the implementation of all feasible mitigation.

## **1.7 PROJECT REVIEW AND CEQA PROCESS**

### **1.7.1 AGENCY REVIEW AND CEQA PROCESS**

This EIR will be used by the County and other agencies to fulfill the requirements of CEQA. It will also be used as an informational document by other federal, state, and local agencies that may have a direct interest in the proposed project. The County has the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA have been met; therefore, it is the lead agency under CEQA. The County is also the agency with the first discretionary action of the proposed project and is the primary recipient of funding for the project.

A CEQA responsible agency is a public agency that proposes to carry out or approve a project, for which a lead agency is preparing or has prepared an EIR or Negative Declaration. Responsible agencies include all public agencies other than the lead agency which have discretionary approval power over the project (State CEQA Guidelines Section 15381). State responsible agencies that may issue permits on or review the proposed project are the Central Valley Regional Water Quality Control Board and California Department of Fish and Game.

CEQA defines certain trustee agencies as those that have state-mandated responsibilities for natural resources that are held in trust for the people of California (State CEQA Guidelines Section 15386). In addition to its role as a responsible agency for streambed alteration agreements, the California Department of Fish and Game is a trustee agency that has jurisdiction over natural resources in the state that could be affected by the project, including the state's fish and wildlife resources and designated rare or endangered native plants.

Federal agencies that may issue permits on the proposed project or review the proposed project are the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and U.S. Army Corps of Engineers.

## **1.7.2 PUBLIC REVIEW PERIOD**

This EIR is being distributed to agencies and individuals to ensure that interested parties have an opportunity to express their comments about the potential environmental effects of the proposed project, and to ensure that information pertinent to project approval is provided to agency decision-makers. This EIR is being distributed for a 45-day review period through July 31, 2009. Comments on the EIR should be sent to the following address no later than 5 p.m. on July 31, 2009:

Maywan Krach  
Placer County Community Development Resource Agency  
3091 County Center Drive, Suite 190  
Auburn, CA 95603  
(530) 745-3132  
Fax (530) 745-3003

Comments may also be submitted by e-mail to <cdraecs@placer.ca.gov>. If comments are provided via e-mail, please include the project title in the subject line, attach comments in Microsoft Word format, and include the commenter's U.S. Postal Service mailing address.

Paper copies of the document are also available for review at the County offices, Auburn Library, Lincoln Library, and Placer County Clerk-Recorder's Office at the following addresses:

Auburn Library  
350 Nevada Street  
Auburn, CA 95603

Placer County Clerk-Recorder's Office  
2954 Richardson Drive  
Auburn, CA 95603

Lincoln Library  
590 Fifth Street  
Lincoln, CA 95648

Placer County Department of Facility Services Office  
2855 2<sup>nd</sup> Street  
Auburn, CA 95603

Electronic copies of the EIR can be downloaded from the County's website at:  
<http://www.placer.ca.gov/CommunityDevelopment/EnvCoordSvcs/EnvDocs.aspx>

## **2.0 EXECUTIVE SUMMARY**

### **2.1 SUMMARY DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES**

#### **SUMMARY OF PROPOSED PROJECT**

The Hidden Falls Regional Park Project (proposed project, or project) involves access and passive recreation improvements at a regional park proposed by the Placer County (County) Department of Facility Services. The County has the principal responsibility for approving and carrying out the proposed project and is the primary source of funding for the proposed project. The proposed project would include improvement of access, and construction of a multiple-use, natural-surface trail system and other passive recreational facilities that would be located within Hidden Falls Regional Park (Park). The Park is located in Placer County between north Auburn and the City of Lincoln.

It is anticipated that project features would be constructed in phases as funding becomes available. Specific features and uses that are proposed as part of the project are as follows:

1. Approximately 14 miles of new multiple-use, natural-surface trails in addition to more than 10 miles of existing ranch roads for hikers, mountain bikers, and equestrians within the Spears Ranch portion of the Park. Exhibit 3-4 depicts the planned trail system designed by County staff and consultants with input from the Hidden Falls Trails Forum. This trail map would guide initial construction. However, this project anticipates the ability of the County to make adjustments to the trail network to promote desirable user patterns and other operational needs subject to avoidance of sensitive areas and adherence to applicable permit requirements;
2. Trail and bridge connections to other public trails near the Park property (in addition to the trail network constructed on-site);
3. American's with Disabilities (ADA) accessible trails including access for ADA vehicles;
4. Development of a nature/cultural education/commercial kitchen/conference center at the existing ranch house or other suitable location within the facility development zone;
5. Bridge crossings over Coon Creek and other drainages to support the trail network, provide emergency access, and connect to the existing trail system within the Didion Ranch portion of the Park;
6. Culvert and rock-lined stream crossings over intermittent drainages to support the trails network;
7. Permanent restroom facilities with low-flow toilets, portable, holding tank and/or vault type restroom facilities, and associated septic/water systems and pipelines in addition to existing facilities and septic systems, as required to accommodate Park uses;
8. Groundwater wells for drinking water and restrooms in addition to the existing facilities, as required to accommodate Park needs;
9. Fire suppression facilities including helistops (i.e., flat unpaved area for emergency helicopter landing) and an emergency water system;
10. Equestrian facilities (e.g., horse watering facilities, hitching posts);
11. Picnic areas throughout the Park to accommodate use, including covered pavilions;

12. Benches and rest areas throughout the Park;
13. Enclosed bear-proof trash receptacles throughout the Park to accommodate use;
14. Suitable landscaping around parking areas and restrooms;
15. Improvements to facilitate public access to viewing areas (e.g., pond-side boardwalk);
16. A disc golf course may be developed that would generally coincide with areas of shaded fuel breaks and other upland areas where the foot traffic pattern would not impact sensitive areas and/or would be beneficial to ongoing vegetation management/fire risk reduction objectives;
17. Drinking fountains;
18. Designated fishing locations along Coon Creek and/or ponds developed in coordination with the California Department of Fish and Game (DFG);
19. New fishing ponds developed in conjunction with the fuel load reduction and/or grazing plans and in coordination with DFG;
20. Film and theater production, subject to County Film Permit requirements;
21. Managed hunting of legal game during times of Park closure. Hunting would be allowed for up to two 2-day seasons per year with 10 hunting permits being issued per season or through depredation permits (e.g., for feral pigs);
22. Interpretive programs, including signage, displays, and/or guided tours;
23. A group camping area with one or more formalized fire pits, a group tent area, and/or bunkhouses for scheduled, supervised overnight use within the facility development zone;
24. Support restoration of various habitats within the Park;
25. Construction of parking areas for automobiles and horse trailers and expansion of the Didion Ranch parking area;
26. Use of the Park for grazing, educational classes, camps and field trips, and
27. Reservation-based events consistent with passive recreation and nature enjoyment such as cross-country training and meets. Reservation-based events with an aggregate of less than 200 people on-site at any given time not including regular use of the Park, would obtain reservations through the standard reservation system of the Placer County Parks Division. The County Parks Reservation System would work to ensure that event traffic in combination with day use traffic would not exceed parking capacity. To that end, event reservations may include exclusion of events during times of peak day use, restrictions on the number and type of vehicles attending events, or other suitable measures. Any large events that would exceed the capacity of the on-site restrooms would need to supply portable toilets, and large events that exceed 200 individuals on-site at any given time or exceed parking capacity would be required to obtain a Temporary Event Permit from the County Community Development Resources Agency. Size, timing, duration, and other variables related to these large events are not known at this time, therefore, consistent with other County Park operations, these would undergo separate environmental review as part of the permit application process.



Vehicle access to the Park would be expanded in phases as funding becomes available. Prior to allowing expanded vehicle access for each phase, the corresponding road and parking improvements would be completed as described in Table 2-1.

<b>Table 2-1</b> <b>Summary of Park Access Phasing</b>	
Permitted Access	Corresponding Improvements
<b>PHASE 1</b>	
<ul style="list-style-type: none"> <li>▶ Trail and emergency access system would be completed throughout the Park and opened for daily public use via existing Mears entrance</li> <li>▶ Daily public vehicle access would be restricted to existing Mears entrance</li> <li>▶ Didion Ranch parking area would be expanded from 55 parking spaces to up to 82 parking spaces (i.e., up to 25 additional paved stalls and 12 additional truck and trailer spaces) including relocating the adjacent helistop.</li> <li>▶ Garden Bar entrance would continue to be used by County employees, tenants, contractors, consultants, utility providers, maintenance trucks, fire and law enforcement personnel without additional improvements</li> <li>▶ Development of existing ranch house may proceed during Phase 1</li> <li>▶ Occasional classroom sized groups would be permitted to access site through Garden Bar entrance on appointment basis (gates would be opened and closed behind groups)</li> <li>▶ A handicap-placard-only parking area may be constructed near the emergency access bridge. Park use would be regulated through the Placer County Parks Division reservation system.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Prior to allowance of classroom sized groups, a new public access gate and approximately 200 feet of connecting road to existing access road would be constructed at the intersection of Garden Bar Road near the existing access road (as applicable per the terms of the Purchase and Sale Agreement with the Spears family).</li> <li>▶ Prior to allowance of classroom sized groups, a 48 inch high 12.5-gauge woven wire field fence would be constructed along both sides of access road between Garden Bar Road and Park entrance (as applicable per the terms of the Purchase and Sale Agreement with the Spears family).</li> <li>▶ Prior to allowance of classroom sized groups, two cattle guards would be installed at each end of the access road between Garden Bar Road and the Park entrance (as applicable per the terms of the Purchase and Sale Agreement with the Spears family).</li> <li>▶ Up to 25 additional paved parking stalls and up to 12 additional equestrian parking stalls may be developed at the existing Mears entrance (Placer County 2003).</li> </ul>
<b>PHASE 2</b>	
<p>In addition to Phase 1 Access:</p> <ul style="list-style-type: none"> <li>▶ Daily public automobile access would be allowed to the new parking area at western end of property via Garden Bar Road.</li> <li>▶ Equestrian trailers would be excluded from the western parking area and from entering the Park via Garden Bar Road. Equestrians would continue to enter the Park via Mears entrance.</li> <li>▶ Reservation-based events consistent with passive recreation and education with 200 attendees or less at one time would be allowed by County Parks Division reservation.</li> <li>▶ Use of ranch house for educational and/or meeting purposes would remain regulated by County Parks Division reservation system and/or use agreements.</li> </ul>	<p>In addition to Phase 1 Improvements:</p> <ul style="list-style-type: none"> <li>▶ New parking area would be constructed at western end of property to include 50 stall paved parking lot and gravel overflow area.</li> <li>▶ Widen Garden Bar Road from Mt. Pleasant Road to access road to 18 feet of hard surface with 2-foot shoulders where feasible subject to County review and approval.</li> <li>▶ Vertical curves along Garden Bar Road would be improved in accordance with traffic safety report recommendations subject to County review and approval.</li> <li>▶ Signing and striping improvements along Garden Bar Road would be made in accordance with traffic safety report recommendations subject to County review and approval.</li> <li>▶ Improve the access road from Garden Bar Road to the western parking area to 24 feet wide all weather surface with 2 foot shoulders where feasible subject to County review and approval 1.</li> <li>▶ Install a gate between the western parking area and the ranch house to prevent unrestricted vehicle access beyond parking area into remainder of property.</li> </ul>

PHASE 3	
<p>In addition to Phase 1 and 2 Access:</p> <ul style="list-style-type: none"> <li>▶ Daily public access for equestrian trailers would be allowed to the western parking area via Garden Bar Road.</li> </ul>	<p>In addition to Phase 1 and 2 improvements:</p> <ul style="list-style-type: none"> <li>▶ A gravel equestrian staging area would be constructed adjacent to the new paved parking area to allow parking for up to 20 horse trailers.</li> <li>▶ Widen Garden Bar Road from Mt. Pleasant Road to the access road to 20 feet of hard surfacing with 2-foot shoulders where feasible subject to County review and approval.</li> <li>▶ Horizontal curves along Garden Bar Road would be improved in accordance with traffic safety report recommendations subject to County review of improvement plans.</li> </ul>
<p><sup>1</sup> In areas along Garden Bar Road and the access road from Garden Bar Road to the Park entrance where the County determines that status trees, significant rock outcroppings, and other valuable natural features within the proposed widening corridor should be preserved, or where adequate road right-of-way does not currently exist and is not obtainable through market value based willing seller negotiations, alternatives such as turnouts, striping, and/or signage may be considered and approved in lieu of full width widening for those discreet areas.</p>	

Based on current usage patterns and estimated increase in usage corresponding to expanded amenities, it is anticipated that the project could generate as many as 128 weekday and 230 weekend vehicle round trips per day.

## PROJECT LOCATION

The proposed project would occur between north Auburn and the City of Lincoln in Placer County, in the Sierra Nevada foothills approximately 40 miles northeast of Sacramento. The approximately 1,200-acre Park consists of the properties formerly known as Spears Ranch (979 acres) and Didion Ranch (221 acres). The project area is situated along Coon Creek and is south of the Bear River. Garden Bar Road is located to the west; Mt. Vernon and Mt. Pleasant Roads are to the south; Bell and Hubbard Roads are to the east; and private property is located to the north.

## PROJECT ALTERNATIVES

Four alternatives—the No Project Alternative, the Single-Track Trails Alternative, the Dispersed Recreation Alternative, and the Reduced Access Alternative—are evaluated in Chapter 15.0, “Other CEQA Sections.” Table 15-1 in Chapter 15.0 provides a comparison of the alternatives; brief descriptions of each alternative are provided below.

## 2.2 ALTERNATIVES TO THE PROPOSED PROJECT

### NO PROJECT ALTERNATIVE (ALTERNATIVE 1)

The No Project Alternative assumes that the proposed trail system and other recreational facilities would not be constructed. Existing trails within the Didion Ranch portion of the Park would continue to be used for recreation, and the Spears Ranch portion of the Park would not be open to the public. The project area would continue to be managed by the County according to the goals set forth in the Placer Legacy Program. This alternative would not help meet the demand for recreational facilities in Placer County, specifically hiking, biking, equestrian trail riding, and nature/cultural interpretation and education. Because no trails or related facilities would be constructed under this alternative, the impacts associated with the proposed project on biological resources; cultural resources; visual resources, transportation and circulation; air quality; noise; soils, geology, and seismicity; hydrology and water quality; public services and utilities; and hazardous materials and hazards would not occur. The No Project Alternative would also have little to no impact on land use and agriculture; population, employment, and housing; and mineral resources. This alternative would not have the beneficial effect on recreation that would result from implementing the proposed project.

## **SINGLE-TRACK TRAILS ALTERNATIVE (ALTERNATIVE 2)**

For the Single-Use Trails Alternative, the proposed natural-surface trails and recreational facilities would be constructed as described for the proposed project; however, the trails would be designed as narrower hiking trails, not multiple-use trails. There would be no equestrian facilities (e.g., watering troughs, tie rails) within the Spears Ranch portion of the property, and the parking area constructed on the Spears Ranch portion of the property would be smaller and would not include larger spaces for horse trailers. Public access would be provided for automobiles via Garden Bar Road and Mears Drive; however, no horse trailers would be allowed access to the Spears Ranch portion of the Park. The existing trails in the Didion Ranch portion would continue to be multiple-use. Improvements would be made to Garden Bar Road to allow access by automobiles, but no additional road improvements would be made to accommodate horse trailers. Garden Bar Road would continue to be used by County staff for maintenance and for access by emergency vehicles. Impacts of the Single-Track Trails Alternative are described below by resource topic.

This alternative would include narrower trails and no equestrian facilities because the equestrian use would not be included as a use of the Spears Ranch portion of the Park. Therefore, this alternative would have less of an impact than the proposed project on soils, geology, and seismicity; hydrology and water quality; biological resources; visual resources; transportation and circulation; air quality; hazards and hazardous materials; and noise. This alternative would have similar impacts to the proposed project on land use and agriculture; population, employment, and housing; mineral resources; cultural resources; and public services and utilities. This alternative would provide less recreational benefit than the proposed project, because the trails would not be provided for bicycle or equestrian use.

## **DISPERSED RECREATION ALTERNATIVE (ALTERNATIVE 3)**

For the Dispersed Recreation Alternative, no recreational facilities would be constructed; however, the proposed Park would be open to the public. The Park would be multiple-use under this alternative and hiking, biking, and equestrian use would be allowed, but recreation would be dispersed throughout the Park and would not follow any constructed trails; volunteer trails would be expected to develop. Under this alternative, a gravel parking area would be provided on the Spears Ranch portion of the Park and the paved parking area would continue to be available on the Didion Ranch portion of the Park. No motorized access would be provided beyond designated parking areas. Access to the Park would be provided for automobiles and horse trailers via Garden Bar Road and Mears Drive.

This alternative would include fewer recreational facilities than the proposed project because no trails or other recreational facilities would be constructed. Therefore, it would have fewer construction-related impacts, which would result in less of an impact on air quality, public services, and transportation and circulation. This alternative would have similar impacts on land use and agriculture; population, employment, and housing; mineral resources; visual resources; and hazards and hazardous materials. Operation of this alternative would have more of an impact on cultural resources; geology, soils, and seismicity; hydrology and water quality; and biological resources than the proposed project.

## **REDUCED ACCESS ALTERNATIVE (ALTERNATIVE 4)**

Under the Reduced Access Alternative, the proposed natural-surface multiple-use trails and related recreational amenities would be constructed as described for the proposed project; however, no public access to the Park would be provide via Garden Bar Road. Automobile, equestrian, and bus access would continue to be provided via Mears Drive and the existing Didion Ranch parking area would be expanded to accommodate increased use. If access is only provided via Mears Drive, the Didion Ranch parking area would need to be expanded beyond the proposed expansion under the proposed project to accommodate the increase in use. Garden Bar Road would continue to be used by County staff for maintenance and for emergency vehicle access. Impacts of the Reduced Access Alternative are described below by resource topic.

This alternative would not include construction associated with improvements to Garden Bar Road. Therefore, this alternative would have less of an impact than the proposed project on soils, geology, and seismicity; hydrology and water quality; biological resources; visual resources; air quality; hazards and hazardous materials; and noise. This alternative would have similar impacts to the proposed project on land use and agricultural resources; population, employment, and housing; mineral resources; cultural resources; transportation and circulation; and public services and utilities. This alternative would provide less recreational benefit than the proposed project, because the less public access and parking would be provided for the Park.

## **2.3 ENVIRONMENTAL IMPACTS AND MITIGATION**

Information in Table 2-2, “Summary of Environmental Impacts and Mitigation Measures,” has been organized to correspond with the environmental issues discussed in Chapters 4.0 through 14.0 of this document. The summary table is arranged in four columns: environmental impacts; level of significance without mitigation; mitigation measures; and level of significance with implementation of mitigation measures. Environmental impacts and mitigation measures for the proposed project are included in this table. For a full discussion of all impacts and mitigation measures, refer to Chapters 4.0 through 14.0 of this document.

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>Land Use and Agricultural Resources (Chapter 4.0)</b>			
<b>4-1: Adverse Effect on Agricultural or Timber Resource Operations or Conversion of Important Farmland to Nonagricultural Uses.</b> The proposed project would increase use of the project area by the public where grazing activities currently take place, and the project area is designated as Farmland of Statewide Importance and Farmland of Local Importance. Grazing would continue on the property and is included as a component of the County's vegetation, fuels, and range management plan for the Park. Therefore, the property's agricultural use would be sustained as part of the project.	LTS	No mitigation necessary.	LTS
<b>4-2: Alteration of Land Use and Potential Conflicts with Existing or Future Land Uses Adjacent to the Project Area.</b> Use of the project area for open space and grazing would be consistent with surrounding land uses; however, outdoor recreation would be a new land use for the project area. The proposed project would add trails and recreational facilities and would increase the use of the project area by the public. Although this change in use would be different from surrounding uses, project facilities are included that would ensure compatibility with surrounding land uses adjacent to the project area.	LTS	No mitigation necessary.	LTS
<b>4-3: Potential for Conflicts with Land Use or Agricultural Resource Plans, Policies, or Regulations.</b> Construction and operation of outdoor recreational facilities in the project area is not included as a land use under the General Plan's Agriculture land use designation. However, the County determines allowable land uses at a parcel-level according to the zoning code, and outdoor recreational uses are allowed as specified in the open space zoning district. According to the Placer County zoning code, the project would be allowed in the project area with approval of a Conditional Use Permit. Further, the use of the property as a regional park is considered compatible with agricultural uses, would maintain the	LTS	No mitigation necessary.	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
natural state of the area, and grazing activities would continue to occur after the project is implemented. Therefore, the land uses proposed by the project are consistent with existing plans, policies, and regulations. In addition, the project area is not enrolled in a Williamson Act contract.			
<b>4-4: Roadway Improvements on Garden Bar Road and Potential Conflicts with Existing or Future Land Uses Adjacent to the Project Area.</b> Garden Bar Road would be improved to meet demands of increased traffic related to Park use. Roadway improvements would include widening in certain areas that could impact existing properties, trees, environmentally sensitive areas, and utility poles located along Garden Bar Road. However, design features are included in the project design that would minimize impacts on properties, and other sensitive areas. Road widening would not result in a change in existing land uses adjacent to Garden Bar Road and the impacts would be primarily temporary during construction.	LTS	No mitigation necessary.	LTS
<b>Soils, Geology, and Seismicity (Chapter 5.0)</b>			
<b>5-1: Construction- and Operation-Related Erosion Hazards.</b> Based on soil types and topography, the excavation and grading of soil in the project area could result in erosion during project construction, particularly during periods of strong winds or storm events. In addition, use and maintenance of the Park could result in erosion over time.	PS	<b>5-1: Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required.</b>  <b>A: Implement Stormwater BMPs.</b>  Water quality BMPs shall be designed according to the <i>Stormwater Best Management Practice Handbooks for Construction, for New Development and Redevelopment</i> (CSQA 2003).  Storm drainage from on- and off-site impervious surfaces (including roads) shall be collected and routed through specially designed catch basins, vegetated swales, vaults, infiltration basins, water quality basins, or filters for entrapment of sediment, debris	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>and oils/greases, and other identified pollutants, as approved by the County. BMPs shall be designed at a minimum in accordance with the <i>Guidance Document for Volume and Flow-Based Sizing of Permanent Post-Construction Best Management Practices for Stormwater Quality Protection</i> (Placer Regional Stormwater Coordination Group 2005).</p> <p>No water quality facility construction shall be permitted within any identified wetlands area, floodplain, or right-of-way, except as authorized by appropriate regulatory authorities.</p> <p>All BMPs shall be maintained as required to ensure effectiveness.</p> <p><b>B: Obtain RWQCB Permit and Implement Construction BMPs.</b></p> <p>Projects with ground disturbance exceeding 1 acre that are subject to construction storm water quality permit requirements of the National Pollutant Discharge Elimination System (NPDES) program shall obtain such permit from the Regional Water Quality Control Board and shall obtain evidence of a state-issued Waste Discharge Identification number or filing of a Notice of Intent and fees prior to start of construction.</p> <p>This project is located within the area covered by the County's municipal stormwater quality permit, pursuant to the NPDES Phase II program. Project-related storm water discharges are subject to all applicable requirements of said permit. BMPs shall be designed to mitigate (minimize, infiltrate, filter, or treat) storm water runoff in accordance with "Attachment 4" of Placer County's NPDES Municipal Stormwater Permit (State Water Resources Control Board NPDES General Permit No. CAS000004).</p> <p>Construction (temporary) BMPs for the project include, but are not limited to:</p>	

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> <li>▶ Use temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils;</li> <li>▶ Store materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water;</li> <li>▶ Use water for dust control;</li> <li>▶ Construct sediment control basins;</li> <li>▶ Regular sweeping of entry and exit areas to minimize off-site sediment transport;</li> <li>▶ Install traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and</li> <li>▶ Use barriers, such as straw bales, perimeter silt fences, or placement of hay bales, to minimize the amount of uncontrolled runoff that could enter drains or surface water.</li> </ul> <p><b>C: Implement Post-Development BMPs.</b></p> <p>Post-development (permanent) BMPs for the project include, but are not limited to:</p> <ul style="list-style-type: none"> <li>▶ The project will have an effective system of erosion and sedimentation control, consisting of vegetative and structural measures and management practices, to reduce the damage of erosion and costly clean-up procedures.</li> <li>▶ Following trail construction, wattles/fiber rolls and/or gravel-filled bags will remain in place until permanent stabilization measures have proven successful.</li> <li>▶ For the duration of the project, storm drainage within ditch systems associated with switchback construction will have stabilized ditch protection. This will consist of filter fabric, mulch, or a 3-inch gravel base.</li> <li>▶ Plan development to fit the particular topography, soils, waterways, and natural vegetation of the site, to avoid the creation of erosion problems on the site.</li> </ul>	



**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> <li>▶ Reduce erosion hazards and runoff volumes and velocity by limiting the length and steepness of slopes. Slopes subject to erosion should not be steeper than 2:1 horizontal to vertical.</li> <li>▶ Break up long steep slopes by benching, terracing, or diversion structures.</li> <li>▶ Use existing vegetation to control erosion to (a) shield the soil surface from rain, (b) increase infiltration, (c) reduce velocity of runoff and (d) hold soil in place and act as a filter.</li> <li>▶ Time the project so that grading and construction occur during the normal dry season to the extent feasible.</li> </ul> <p>The County shall also consult with the RWQCB to acquire the appropriate regulatory approvals that may be necessary to obtain Section 401 water quality certification.</p>	
<b>5-2: Risks to People from Naturally Occurring Asbestos.</b> Disturbance of naturally occurring asbestos fibers could create a health hazard. The project area is located in an area that is moderately likely to contain naturally occurring asbestos, and disturbance of soil during construction could expose workers to asbestos.	PS	<b>9-1: Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed</b> (Please see description below in Mitigation Measure 9-1.)	LTS
<b>5-3: Risks to People and Structures Caused by Strong Seismic Ground Shaking or Fault Rupture.</b> The project area has the potential to be affected by shock waves resulting from earthquakes in distant areas that display greater seismic activity. In addition, the Bear Mountain Fault is located within 5 miles of the project area. Although all project facilities would be designed and constructed in accordance with the current design requirements for the California Building Code and the project area is not located in an Alquist-Priolo Earthquake Fault Zone, the project could construct buildings or structures across an active fault.	PS	<b>5-2: Obtain and Implement Seismic Engineering Design Recommendations.</b> <ol style="list-style-type: none"> <li>Prior to issuance of grading permits, the applicant shall obtain the services of a qualified, licensed geotechnical engineer to examine for traces of the Bear Mountain fault within the project area. If traces of the Bear Mountain fault cross the project area, a qualified, licensed geotechnical engineer shall develop engineering design recommendations for the project area. The recommendations shall include calculation of seismic shaking hazards using the appropriate computer modeling software, and shall include specific structural design recommendations to minimize potential damage to</li> </ol>	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>buildings and structures from seismic events. The recommendations shall also include an examination of the traces of the Bear Mountain fault system within the project area, including surface reconnaissance, and shall make recommendations for building foundation and infrastructure design accordingly. All appropriate design recommendations shall be implemented during the project design and construction phases.</p> <p>b. No structures intended for human occupancy shall be constructed within a 100-foot-wide no building zone over the Bear Mountain fault traces. However, following completion of the seismic study required in (a) above, the no building zone may be modified if recommended by the geotechnical engineer.</p> <p>c. Prior to issuance of grading permits, the County shall obtain the services of a qualified, licensed geotechnical engineer to prepare a comprehensive final geotechnical report for the entire project area with specific design recommendations sufficient to ensure the safety of soil conditions, project structures, and site occupants. The report shall include project design and construction recommendations to address:</p> <ul style="list-style-type: none"> <li>▶ Site preparation and grading, including surface and subsurface prep work, engineered fill materials, fill placement and compaction, trench backfill, and surface drainage;</li> <li>▶ Foundation requirements specific to the location of each component of the proposed project;</li> <li>▶ Concrete slabs-on-grade, both interior and exterior;</li> <li>▶ Retaining and below grade walls; and</li> <li>▶ Pavements.</li> </ul>	

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
The seismic engineering design recommendations shall be incorporated into the project design. The County shall insure adequate field inspection during construction.			
<b>5-4: Risks to People and Structures Caused by Landslides.</b> Although stable slope conditions and drainage patterns may change with site alterations (e.g., cuts, fills) associated with construction of recreation facilities in the Park, field review of the project area identified no areas of shallow slope instability and/or small landslide areas. Therefore, the risk of a landslide is considered low.	LTS	No mitigation necessary.	LTS
<b>5-5: Limited Ability for Soils to Support Operation of a Wastewater Disposal System.</b> Soils in the project area are identified by USGS as having limitations for the use of septic tanks. However, on-site soil testing for the project has confirmed soils capable of supporting a conventional septic system.	LTS	No mitigation necessary.	LTS
Cultural Resources (Chapter 6.0)			
<b>6-1: Potential for Loss of or Damage to Potentially Significant Cultural Resources.</b> Nine potentially significant cultural resources and one significant cultural resource have been documented within the Spears Ranch portion of the Park. The proposed project has the potential to damage or destroy these cultural resources, either directly by construction or by increased public use.	PS	<b>6-1: Modify Project Plans to Avoid Potentially Significant Cultural Resources and Actively Monitor Resources for Indirect Effects.</b> The County will prepare detailed design of trails, roads, and Park facilities to ensure that direct effects associated with project implementation avoids all significant and potentially significant documented cultural resources in the project area. As part of the County's ongoing operational responsibility, usage trends that threaten any potentially significant documented cultural resources will be actively managed to avoid damage. If designing such trails and facilities to avoid potential impacts is not feasible or if management of Park usage indicates potential impacts to significant or potentially significant cultural resources, an approved treatment plan shall be drafted and implemented to mitigate the significant impacts. Such a plan may include one or more of the following elements:	LTS

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"><li>▶ vegetation removal and surface inspection;</li><li>▶ ethnographic studies or Native American consultation, or both;</li><li>▶ subsurface testing; and</li><li>▶ if necessary, data recovery.</li></ul>	
<b>6-2: Potential for Disturbance of Undiscovered Cultural Resources.</b> The project vicinity is known to contain numerous historic and prehistoric resources. In addition, buried traces of historic-era activity and early Native American occupation that remain undocumented may be present within and in the vicinity of proposed trails. Ground-disturbing activities during construction of trails and Park facilities could disturb undiscovered cultural resources.	PS	<b>6-2: Protect Previously Unknown Cultural Resources.</b> Given the potential for subsurface deposits, if undocumented resources are encountered during construction, all destructive work in the vicinity of the find shall cease until a qualified professional archaeologist can assess the significance of the find and, if appropriate, provide recommendations for treatment. Appropriate measures for treatment may include no action, avoidance of the resource through relocation of Park facilities, subsurface testing, and potentially data recovery. For any such discovery, a memorandum documenting the results of the evaluation shall be provided to the County by the archaeologist, and the County shall forward the memorandum to the California Department of Parks and Recreation and the State Historic Preservation Officer.	LTS
<b>6-3: Potential for Disturbance of Unknown Human Interments.</b> Although no evidence of human interments was found in documentary research or during the archaeological inventory evidence of prehistoric and historic use of the project area has been found. If undiscovered human remains are present, ground-disturbing activities during construction of trails and other Park facilities could adversely affect presently unmarked human interments.	PS	<b>6-3: Stop Potentially Damaging Work if Human Remains are Uncovered during Construction.</b> In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, the construction contractor or the County, or both, shall immediately halt potentially damaging excavation in the area of the burial and notify the County coroner and a qualified professional archaeologist to determine the nature of the remains. The coroner shall examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands, in accordance with Section 7050(b) of the Health and Safety Code. If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Section 7050[c]). After the coroner's findings are presented, the County, the archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed.</p> <p>Upon the discovery of Native American remains, the procedures above regarding involvement of the County coroner, notification of the NAHC, and identification of a MLD shall be followed. The County shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours after being granted access to the site to complete a site inspection and make recommendations. A range of possible treatments for the remains may be discussed: nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment. Assembly Bill (AB) 2641 (Chapter 863, Statutes of 2006) suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641 includes a list of site protection measures and states that the County shall comply with one or more of the following measures:</p> <ul style="list-style-type: none"> <li>▶ Record the site with the NAHC or the appropriate Information Center.</li> <li>▶ Utilize an open-space or conservation zoning designation or easement.</li> <li>▶ Record a document with the county in which the property is located.</li> </ul> <p>The County or its authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a</p>	

<p><b>Table 2-2</b> <b>Summary of Environmental Impacts and Mitigation Measures</b></p>			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The County or its authorized representative may also reinter the remains in a location not subject to further disturbance if it rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner. Adherence to these procedures and other provisions of the California Health and Safety Code and AB 2641 would reduce potential impacts on human remains to a less-than-significant level.	
Visual Resources (Chapter 7.0)			
<b>7-1: Short-Term Changes in Visual Resources Associated with Project Construction.</b> Construction activity, construction equipment, and areas of vegetation removal would be temporarily visible during and immediately after construction of proposed project facilities (e.g., bridges, trails, viewing boardwalk, roads, parking areas). However, these changes in views would be minimal and not visible from most off-site locations. In addition, all views of construction activities would be temporary.	LTS	No mitigation necessary.	LTS
<b>7-2: Long-Term Changes in Visual Resources Associated within the Proposed Regional Park.</b> The proposed project would introduce new physical elements into the landscape; however, the proposed facilities of the Park (e.g., bridges, trails, viewing boardwalk, restroom, picnic areas, expanded parking area) would be in a remote location, avoiding visually obtrusive effects.	LTS	No mitigation necessary.	LTS
<b>7-3: Long-Term Changes in Visual Resources Associated with the Improvements to Garden Bar Road.</b> The proposed project would widen Garden Bar Road which would require removal of existing trees. The removal of trees would result in a substantial physical change to the visual environment of the road and would occur within close proximity of viewers, including adjacent residents.	S	<b>7-1: Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts.</b> To address the potential degradation of visual quality resulting from tree removal, the County shall revegetate and restore all disturbed areas. Revegetation undertaken between April 1 and October 1 shall include regular watering to ensure adequate initial growth. To the extent feasible, restoration of trees and shrubs shall reduce visual impacts for	SU

<p><b>Table 2-2</b> <b>Summary of Environmental Impacts and Mitigation Measures</b></p>			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>affected properties. Revegetation of disturbed areas shall promote restoration of vegetation over time that is as consistent as feasible with the surrounding natural landscape, recognizing constraints of the right-of-way and available space. The County shall prepare a restoration and revegetation plan that implements actions intended to mitigate the impacts on trees and vegetation removed along Garden Bar Road. The plan will be prepared in conjunction with detailed roadway engineering design, so that precise areas of disturbance are known and the revegetation process can be coordinated with roadway implementation. Portions of the revegetation plan may be implemented on adjacent property outside the County road right-of-way by agreements with willing property owners.</p> <p><b>12-8: Protect Oak Woodland Habitat.</b> (Please see description below in Mitigation Measure 12-8.)</p>	
<p><b>7-4: Increased Light and Glare.</b> The proposed Park would include some security lighting and lighting at the caretaker's residence. However, the lighting in the project area would not change substantially compared to existing lighting.</p>	LTS	No mitigation necessary.	LTS
Transportation and Circulation (Chapter 8.0)			
<p><b>8-1: Temporary Increase in Traffic during Construction.</b> During construction of the proposed Park, local roadways would experience an increase in traffic from daily commutes by construction workers and delivery trucks. However, this increase in traffic would be temporary and is not expected to be substantial in relation to the existing traffic load and capacity of area roadways.</p>	LTS	No mitigation necessary.	LTS
<p><b>8-2: Increase in Traffic Impacts Associated with Use of Garden Bar Road.</b> Additional automobiles and trucks with equestrian trailers entering and exiting the proposed Park entrance via Garden Bar Road could cause an increase in traffic impacts in the project area. Garden Bar Road would be improved with the project and the</p>	LTS	No mitigation necessary.	LTS

<p><b>Table 2-2</b> <b>Summary of Environmental Impacts and Mitigation Measures</b></p>			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Park entrance would be designed for safe ingress and egress of trucks and trailers.			
<p><b>8-3: Increase in Traffic with Operation of the Park.</b> The proposed Park would add approximately 255 one-way vehicle trips per day (weekday) to 460 one-way vehicle trips per day (weekend) during peak visitation periods, with 25–30 of those one-way trips expected during weekday peak commute hours. This traffic increase would not result in conditions in excess of adopted standards at intersections or on individual roadway segments.</p>	LTS	No mitigation necessary.	LTS
<p><b>8-4: Transportation and Circulation—Increase in Traffic related to Reservation-Based Events in the Park.</b> Reservation-based events at the Park could cause an increase in automobile, truck, and bus traffic in addition to regular Park use. Use of Garden Bar Road by buses and/or delivery trucks could impact traffic flow along the road.</p>	PS	<p><b>8-1: Implement Traffic Control Measures During Park Reservation-Based Events.</b> Reservation-based events (involving less than 200 people on-site at a given time) would be regulated by the County Parks Division Reservation System. The Reservation System would include, but not be limited to, applicable restrictions on:</p> <ul style="list-style-type: none"> <li>▶ event start and end times so as not to exceed peak usage capacity of Garden Bar Road or coincide with scheduled use of the road by school buses;</li> <li>▶ regulation of number and types of vehicles so as not to exceed parking capacity (i.e., 50 paved stalls and 20 truck and trailer gravel stalls) in combination with daily use;</li> <li>▶ the range of vehicle sizes allowed on Garden Bar Road during Phases 1 and 2 to be determined by the County Department of Public Works. Vehicles exceeding the maximum unrestricted size on Garden Bar Road shall be subject to County-imposed traffic controls.</li> </ul> <p>The County may also regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary.</p>	LTS



**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>8-5: Transportation and Circulation—Adequacy of Parking for Park Visitors.</b> There would be increased demand for parking at the Park and adequate parking would be provided to accommodate Park visitors. Large events that could result in an exceedance of parking capacity would be required to obtain a Temporary Event Permit and undergo separate environmental review.	LTS	No mitigation necessary.	LTS
<b>8-6: Potential Interference with Emergency Response Routes.</b> The proposed trail system would have several access points to provide adequate access for emergency response vehicles and personnel within the Park.	LTS	No mitigation necessary.	LTS
Air Quality (Chapter 9.0)			
<b>9-1: Short-Term Emission of Criteria Air Pollutants and Precursors during Construction.</b> Modeled short-term emissions of ozone precursors and fugitive dust from construction of trails and other project facilities would not exceed PCAPCD's significance threshold of 82 lb/day. Thus, emissions of ROG, NO <sub>x</sub> , and PM <sub>10</sub> associated with project construction would not violate or contribute substantially to an existing or projected air quality violation, nor would they expose sensitive receptors to substantial concentrations of pollutants.	LTS	No mitigation necessary.	LTS
<b>9-2: Long-Term, Regional Emissions of Criteria Air Pollutants and Ozone Precursors Associated with Project Operation.</b> Operational activities associated with the proposed project would not result in emissions of ROG, NO <sub>x</sub> , or PM <sub>10</sub> exceeding PCAPCD's significance threshold of 82 lb/day. Emissions of ROG and NO <sub>x</sub> would also not exceed PCAPCD's cumulative threshold of 10 lb/day. Thus, emissions of criteria air pollutants and precursors associated with project operation would not violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, or conflict with air quality planning effort.	LTS	No mitigation necessary.	LTS

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>9-3: Exposure of Sensitive Receptors to Emissions of Toxic Air Contaminants.</b> The proposed project would not expose sensitive receptors to substantial emissions of TACs during project construction because construction emissions would be temporary and would rapidly dissipate with distance from the source. However, construction workers and surrounding residents could be exposed to dust from asbestos rock and soils during project construction.	PS	<b>9-1: Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed.</b> Prior to the start of construction activities, the County shall test the on-site soils for the presence of asbestos. If asbestos is not present in on-site soils, no further measured would be required. If asbestos is determined to be present on-site, the County shall prepare and implement an asbestos dust control plan as described below.  The project shall comply with PCAPCD Rule 228 for fugitive dust control. In addition, the County shall prepare an asbestos dust control plan for approval by PCAPCD as required in Section 93105 of the California Health and Safety Code, "Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations." The asbestos dust control plan shall specify measures, such as periodic watering to reduce airborne dust and ceasing construction during high winds to ensure that no visible dust crosses the property line. The County shall submit the plan to the County Planning Department for review and PCAPCD for review and approval before construction of the first project phase. Approval of the plan must be received from PCAPCD before any asbestos-containing rock (serpentinite) can be disturbed. Upon approval of the asbestos dust control plan by PCAPCD, the County shall ensure that construction contractors implement the terms of the plan throughout the construction period.	LTS
<b>9-4: Long-Term (Local) Mobile-Source Emissions of Carbon Monoxide during Project Operation.</b> Long-term operational (local) mobile-source emissions of CO would not violate or contribute substantially to a violation of the CAAQS or NAAQS, nor would they expose sensitive receptors to substantial pollutant concentrations.	LTS	No mitigation necessary.	LTS
<b>9-5: Exposure of Sensitive Receptors to Odors.</b> Construction of the proposed trails and recreational facilities would result in diesel exhaust emissions from on-site construction equipment. However, these emissions would be intermittent and would dissipate rapidly	LTS	No mitigation necessary.	LTS

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
with an increase in distance from the source. The proposed project would not be a major source of odors.			
Noise (Chapter 10.0)			
<b>10-1: Short-Term Construction-Generated Noise Levels Exceeding County Standards.</b> Short-term exterior noise levels at the closest existing noise-sensitive receptor could exceed 68 dBA without feasible noise controls, which would exceed the applicable County nighttime standard of 45 dBA at existing nearby off-site sensitive land uses. However, construction would be limited to daytime hours.	LTS	No mitigation necessary.	LTS
<b>10-2: Increases in Long-Term (Operational) Noise Levels from Nontransportation Stationary and Area Sources.</b> Area-source noise may result from maintenance activities. However, exterior noise levels at the closest existing noise-sensitive receptor (800 feet) would not exceed 41 dBA. Such noise levels would not exceed any of the applicable County standards for daytime or nighttime noise, nor would they result in a substantial increase in ambient noise levels at nearby existing noise-sensitive receptors.	LTS	No mitigation necessary.	LTS
<b>10-3: Increases in Transportation-Related Noise Levels.</b> Short-term construction of the proposed Park would not result in a noticeable (i.e., 3 dBA or greater) increase in traffic noise levels along area roadways. Noise increases associated with construction traffic would be temporary and would occur during the less noise-sensitive daytime hours. Long-term traffic associated with project operation would not exceed Placer County standards but would result in a noticeable (i.e., 3 dBA or greater) increase in traffic noise levels along area roadways. Short- and long-term traffic-generated noise levels would not exceed applicable Placer County noise standards; however, long-term traffic would increase ambient noise at nearby existing noise-sensitive receptors.	S	<b>10-1: Restrict General Public Traffic to 6 a.m. to 30 Minutes after Sunset.</b> The County shall restrict all long-term general public traffic to 6 a.m. to 30 minutes after sunset by ensuring that the Park gates are closed and locked until these times. With implementation of Mitigation Measure 10-1 traffic noise level increases on Garden Bar Road North and Mears Drive would be reduced below a substantial amount (3 dBA or more), as shown in Table 10-12. This would reduce Impact 10-3 to a less-than-significant level.	LTS

<b>Table 2-2</b> <b>Summary of Environmental Impacts and Mitigation Measures</b>			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>10-4: Exposure of Persons to or Generation of Excessive Groundborne Vibration or Noise Levels.</b> Ground vibration levels generated by on-site construction equipment would not exceed Caltrans's recommended standard of 0.2 in/sec PPV for the prevention of structural damage or FTA's maximum-acceptable vibration standard with respect to human annoyance for residential uses (80 VdB for residential structures). In addition, long-term use and maintenance of the project area would not include the operation of any sources of ground vibration. Thus, the proposed project would not result in the exposure of persons to or generate excessive groundborne vibration or groundborne noise levels.	LTS	No mitigation necessary.	LTS
Hydrology and Water Quality (Chapter 11.0)			
<b>11-1: Potential for Short-Term, Construction-Related Soil Erosion and Impairment of Water Quality.</b> Project construction could cause short-term degradation of water quality. Areas where vegetation would be removed and topography altered could be subject to erosion from rain and wind. In addition, accidental spills of construction-related contaminants could occur during construction in the project area. Both of these mechanisms could carry soil and construction-related contaminants to on-site drainages before they are ultimately discharged to Coon Creek.	PS	<b>11-1: Prepare and Implement a Grading and Drainage Plan.</b> The Placer County Department of Facility Services shall prepare and submit Grading and Drainage Plans (Plans) and specifications (per the requirements of Section II of the Land Development Manual that are in effect at the time of submittal) for review and approval of work associated with structural design, hydrology associated with the bridges, and grading/drainage associated with the facility development zone. The Plans shall show all conditions affecting those facilities as well as pertinent topographical features. All existing and proposed utilities and easements, on-site and adjacent to those facilities, which may be affected by planned construction, shall be shown on the plans. The County Department shall pay plan check and inspection fees as applicable.  All proposed grading, drainage improvements, vegetation, tree impacts, and tree removal associated with the Park access road, parking areas, and bridges shall be shown on the Plans and all work shall conform to provisions of the County Grading Ordinance (Section 15.48, formerly Chapter 29, Placer County Code) and the Placer County Flood Control District's Stormwater Management Manual. No grading, clearing, or tree disturbance shall occur until the Plans are approved and any required temporary construction fencing has been installed and inspected	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>by a member of the Design Review Committee. All cut/fill slopes included in the Plans shall be at 2:1 (horizontal:vertical) maximum unless a soils report supports a steeper slope and Design Review Committee concurs with said recommendation.</p> <p>In addition, a drainage report in conformance with the requirements of Section 5 of the Land Development Manual and the Placer County Storm Water Management Manual that are in effect at the time of submittal, shall be prepared and submitted with the Plans. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: written text addressing existing conditions, the effects of the improvements, all appropriate calculations, a watershed map, increases in downstream flows, proposed on- and off-site improvements and drainage easements to accommodate flows from this project. The report shall identify water quality protection features and methods to be used both during construction and for long-term post-construction water quality protection. Best Management Practice (BMP) measures shall be provided to reduce erosion, water quality degradation, and prevent the discharge of pollutants to stormwater to the maximum extent practicable.</p> <p>Although the facility development zone is generally in the southwestern portion of the Park, including the previously disturbed area surrounding the existing ranch house and the proposed parking areas, the exact location of individual facilities could vary within this zone. Therefore, it is not practical to prepare the drainage plan prior to project approval. In addition, routine maintenance shall be performed on Park facilities to reduce erosion to the extent possible and to repair weather-related damage that could contribute to erosion.</p> <p><b>5-1: Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required.</b> (Please see description above in Mitigation Measure 5-1.)</p>	

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>11-2: Potential for Long-Term Soil Erosion and Impairment of Water Quality.</b> Use of the proposed trail system and extreme weather events could cause long-term degradation of water quality from soil erosion and creek sedimentation. The introduction of impervious surfaces on-site such as the access road and parking areas has the potential to alter existing absorption rates and increase runoff of surface water into Coon Creek and other drainages on-site.	PS	<b>11-1: Prepare and Implement a Grading and Drainage Plan.</b> (Please see description above in Mitigation Measure 11-1.)	LTS
<b>11-3: Change in the Quality of Groundwater because of Installation of a Septic System.</b> Operation of two septic systems is proposed as part of the project. There is the potential that installing an on-site septic system could change the quality of the groundwater in the Spears Ranch portion of the Park, if the septic system is not sited properly. Although suitable soils have been identified on-site, the potential still exists for changes in groundwater quality to occur.	PS	<b>11-2: Implement Groundwater Protection through a Transient Non-community Water System Permit.</b>  A Hidden Falls Regional Park Groundwater Systems Operation Procedure is in place for the existing well serving the restroom and facilities at the Didion Ranch parking area. Pump performance and system leakage inspections are part of the regular maintenance routine under this procedure. One Park staff member is trained and tasked with water sampling at monthly intervals. The County employs qualified plumbers and electricians to correct any system failures. The Placer County Parks Division, which is a division of the Department of Facility Services, operates the well and distribution system serving the public facilities at the existing Didion Ranch parking area under a Transient Non-community Water System Permit administered by the Placer County Environmental Health Division.  A separate permit would be obtained to include any additional wells that serve public facilities within Spears Ranch portion of the Park, and the conditions of the permit would be implemented to protect groundwater. The siting of any additional wells shall comply with the Placer County Water Well Construction Ordinance (Placer County Code Subchapter 8, effective July 19, 1990), and California Well Standards, Department of Water Resources Bulletin 74-90, June 1991.  A Groundwater Systems Operation Procedure or applicable equivalent would be prepared for any additional wells and adhered to as part of the permit conditions and ongoing operation.	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>The objectives of the procedure shall be to ensure that:</p> <ul style="list-style-type: none"> <li>▶ Water sources are not at risk of contamination from either tampering, pollutant discharge into the well head area, or latent groundwater contaminants.</li> <li>▶ The responsible management agency has the technical capacity to operate the system to public health standards.</li> </ul> <p>The procedure would include the following elements:</p> <ul style="list-style-type: none"> <li>▶ The minimum horizontal distance between any additional wells and any sewer line or storm drain main or lateral shall be 50 feet. The minimum horizontal distance between any additional wells and septic tanks or leach fields shall be 100 feet.</li> <li>▶ A Bacteriological and Chemical Monitoring and Reporting Program, approved by the Placer County Environmental Health Division.</li> <li>▶ An operations and maintenance program including inspection of the distribution system and well head assembly.</li> <li>▶ An emergency operations and repair program.</li> </ul> <p>If well-monitoring samples show that groundwater quality is deteriorating, prompt actions shall be initiated to remedy problems, as specified by the Placer County Environmental Health Division and/or Central Valley RWQCB. These actions could include but would not be limited to the use of injection wells or other recharge methods, closing the well and chlorinating the water, decommissioning the well and re-siting, or other water treatment alternatives such as construction of an on- or off-site water treatment plant. Some of these actions may be subject to additional CEQA analysis and other regulatory compliance. Implementation of Mitigation Measure 11-2 would reduce the potentially significant impact related to groundwater quality impairment to a less-than-significant level, because the Groundwater Systems Operation Procedure would enable the project applicant(s) to acquire the data and information necessary to</p>	

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		manage the groundwater resource such that adverse impacts do not occur. This would enable detection of any negative changes to groundwater quality or quantity. If necessary, additional strategies to maintain the quality of groundwater at the project site and downgradient would be implemented following additional CEQA review.	
<b>11-4: Change in the Supply and Availability of Groundwater through Withdrawals, Interception, or Loss of Recharge Capacity.</b> While soil compaction from constructed facilities could slightly impede recharge in localized areas, less than 5 acres of the project area would be developed with impervious surfaces. Installation of groundwater wells for uses related to the proposed facilities could increase the demand for groundwater; however, project-related groundwater demand would not be substantial and is similar to yield rates found in private wells in the project vicinity. However, the proposed project-related water needs include water necessary for fire suppression and the 2009 water demand calculation report did not evaluate project requirements related to fire suppression. This impact would be potentially significant.	PS	<b>11-3: Calculate Water Demands for Fire Suppression.</b>  If groundwater is to be used for emergency fire suppression water, the County shall amend the April 7, 2009, Water Demand Calculation Report (Placer County 2009) to include fire suppression water requirements. If it is found that fire suppression requirements combined with water demands for other proposed uses is consistent with yields found in nearby private wells (1.3 to 7 gpm) then no further mitigation is required. If fire suppression requirement surpasses yields found in nearby private wells, one of the following shall be done: <ul style="list-style-type: none"><li>▶ modify proposed uses at each well location to be consistent with available water that would not surpass similar yields of nearby wells;</li><li>▶ utilize Nevada Irrigation District raw irrigation water sources including but not limited to existing canals and ponds, new ponds, and/or irrigation fed underground storage tanks;</li><li>▶ fill storage tanks during off-peak periods when use is limited (i.e. winter and nighttime periods);</li><li>▶ import water needed to meet fire suppression requirements for emergency storage tanks via water trucks so that this water is not being pulled from the wells.</li></ul> <b>11-2: Implement Groundwater Protection through a Transient Non-community Water System Permit.</b> (Please see description above in Mitigation Measure 11-2.)	LTS



**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>11-5: Exposure of People or Structures to Flooding.</b> Constructing Park facilities adjacent to or across Coon Creek could expose people and structures to flooding. Park facilities potentially exposed to flooding would be constructed to weather the flows. No housing would be constructed in the floodplain, and access to the floodplain would be restricted in the event of a flood.	LTS	No mitigation necessary.	LTS
<b>11-6: Exposure of People or Structures to WWTP Effluent.</b> Proposed Park facilities would allow people to come into contact with Coon Creek and Whiskey Diggins Canal, which receive effluent (indirectly) from the Placer County SMD 1 WWTP. However, the WWTP operates under an NPDES Permit requiring tertiary treatment protective of beneficial uses including contact and noncontact recreation. Therefore, this impact is less than significant.	LTS	No mitigation necessary.	LTS
<b>Biological Resources (Chapter 12.0)</b>			
<b>12-1: Potential Disturbance of Aquatic Habitats and the Native Fish Community.</b> Several native fish species, including special-status steelhead and fall-/late fall-run chinook salmon, are known to use aquatic habitats in Coon Creek within or immediately downstream of the project area. Implementation of the proposed project could result in temporary and long-term degradation of aquatic habitats, loss of instream cover, and increased injury or mortality of fishes because of increased angling pressure.	PS	<b>12-1: Implement Measures to Protect Aquatic Habitats and the Native Fish Community.</b> The County and its primary construction contractor shall implement the following measures to reduce impacts on aquatic habitats and the native fish community in the project area: <ul style="list-style-type: none"><li>▶ All in-water construction activities shall be conducted during months when sensitive fish species are less likely to be present or less susceptible to disturbance (i.e., April 15 - October 15 or as directed by DFG).</li><li>▶ The County shall obtain and implement the conditions of a streambed alteration agreement. DFG shall be consulted regarding potential disturbance to fish habitat, including SRA habitat, as part of the process for obtaining a streambed alteration agreement, pursuant to Section 1602 of the California Fish and Game Code. Affected habitats shall be replaced and/or rehabilitated to the extent feasible and practicable. The acreage of riparian habitat that would be</li></ul>	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>removed shall be replaced or rehabilitated on a “no-net-loss” basis in accordance with DFG regulations and as specified in the streambed alteration agreement. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to DFG. Minimization and compensation measures adopted through the permitting process shall be implemented.</p> <ul style="list-style-type: none"> <li>▶ The County shall consult and coordinate with DFG to develop regulations and limits for angling in Coon Creek, restrict angling activities while adult steelhead and salmon are present, and coordinate on enforcement of the area to monitor and regulate fishing activities.</li> </ul> <p><b>12-2: Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State.</b></p> <p>Prior to construction, the County shall obtain a verified wetland delineation from USACE. Based on the results of the verified delineation, the County shall commit to replace, restore, or enhance on a “no net loss” basis, in accordance with USACE and the Central Valley RWQCB, the acreage of all waters of the United States and wetland habitats that would be affected by implementation of the project. Wetland restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the Central Valley RWQCB, as determined during the Sections 404, 1602, and 401 permitting processes.</p> <p>The County shall either obtain credits from an approved mitigation bank, at a rate determined by USACE, to replace lost wetland values at a 1:1 ratio, or shall prepare and submit a wetland mitigation and monitoring plan to USACE for the creation of jurisdictional waters at a mitigation ratio no less than 1 acre of created water of the United States, including wetlands, for each acre filled. The mitigation plans shall demonstrate how the USACE criteria for jurisdictional waters will be met through implementation. The wetland mitigation and monitoring plan shall</p>	

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>include the following:</p> <ul style="list-style-type: none"> <li>▶ target areas for creation,</li> <li>▶ a complete biological assessment of the existing resources on the target areas,</li> <li>▶ specific creation and restoration plans for each target area,</li> <li>▶ performance standards for success that will illustrate that the compensation ratios are met, and</li> <li>▶ a monitoring plan, including schedule and annual report format.</li> </ul> <p>The County shall secure the following permits and regulatory approvals, as necessary, and implement all permit conditions before implementation of any construction activities associated with the proposed project.</p> <ul style="list-style-type: none"> <li>▶ Authorization for the fill of jurisdictional waters of the United States shall be secured from USACE through the CWA Section 404 permitting process before any fill is placed in jurisdictional wetlands. Timing of compliance with the specific conditions of the 404 permit shall be in accordance with conditions specified by USACE as part of permit issuance. In its final stage and once approved by USACE, this mitigation plan shall detail proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of jurisdictional wetlands function and services in the project vicinity. As required by Section 404, approval and implementation of the wetland mitigation and monitoring plan shall ensure no net loss of jurisdictional waters of the United States, including jurisdictional wetlands.</li> <li>▶ Water quality certification pursuant to Section 401 of the CWA is required as a condition of issuance of the 404 permit. Before construction in any areas containing wetland features, the County shall obtain water quality certification for the</li> </ul>	

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>project. Any measures required as part of the issuance of water quality certification shall be implemented.</p> <p><b>5-1: Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required.</b> (Please see description above in Mitigation Measure 5-1.)</p> <p><b>11-1: Prepare and Implement a Grading and Drainage Plan.</b> (Please see description above in Mitigation Measure 11-1.)</p>	
<p><b>12-2: Potential Disturbance of California Red-Legged Frog.</b> Suitable habitat for California red-legged frog exists within the project area. Construction and operation of proposed trails, bridges, septic system, and structures across or adjacent to stock ponds, creeks with backwaters, and freshwater marshes could degrade and possibly result in removal of aquatic habitat or could result in physical injury to red-legged frog.</p>	PS	<p><b>12-3: Implement Measures to Protect California Red-Legged Frog.</b> The County and its primary construction contractor shall implement the following measures to reduce impacts on California red-legged frogs:</p> <ul style="list-style-type: none"> <li>▶ Before any work in or within 200 feet of aquatic habitat, the County shall determine whether aquatic habitat is occupied by California red-legged frog, in consultation with USFWS. This determination may be supported by a habitat assessment for California red-legged frog prepared according to USFWS guidelines (USFWS 2005) as revised, and focused surveys if recommended by USFWS. If aquatic habitat in the project area is not occupied by California red-legged frog, there would be no impacts on this species and no further mitigation would be required.</li> <li>▶ If aquatic habitat in the project area is occupied by California red-legged frog, the County shall minimize impacts on California red-legged frog by implementing the following measures: <ul style="list-style-type: none"> <li>• Worker awareness training shall be provided to construction crews working in California red-legged frog habitat. At a minimum, the training shall include a description of California red-legged frog and its habitat and their importance, general measures that are being</li> </ul> </li> </ul>	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>implemented to conserve California red-legged frog as such measures relate to the project, and the boundaries within which construction activities shall occur.</p> <ul style="list-style-type: none"> <li>• Suitable California red-legged frog habitat shall be surveyed 2 weeks before the start of construction activities. If California red-legged frogs, tadpoles, or eggs are found, they may be moved from the project area only with regulatory agency approval. If California red-legged frogs are not identified, construction may proceed.</li> <li>• Exclusionary fencing (i.e., silt fences) shall be installed no more than 200 feet around all areas that are within or adjacent to California red-legged frog habitat.</li> <li>• A USFWS-approved biologist shall be present at active project areas until the removal of California red-legged frog, instruction of workers, and habitat disturbance have been completed. After this time, the County shall designate a person to monitor on-site compliance with all minimization measures.</li> <li>• If any work area will be temporally dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters. Water shall be released downstream at an appropriate rate to maintain downstream flows during construction and in such a manner as to prevent erosion. Dewatering structures shall be removed upon completion of the project.</li> <li>• Guidelines shall be implemented to protect water quality and prevent erosion, as outlined in the best management practices (BMPs) in Mitigation Measure 11-1, "Obtain Authorization for Construction Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required."</li> </ul>	

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"><li>The County shall compensate for permanently lost habitat by developing and/or implementing a habitat creation/restoration plan for California red-legged frog. This plan shall, at a minimum, compensate for lost habitat on an acre-for-acre basis, and it shall include verifiable performance criteria and remediation measures developed with USFWS during the Section 7 consultation process.</li></ul>	
<b>12-3: Potential Disturbance of Foothill Yellow-Legged Frog and Northwestern Pond Turtle.</b> Habitat for foothill yellow-legged frog and northwestern pond turtle occurs in the project area. Construction of trails across drainages could degrade aquatic habitat or could result in physical injury to yellow-legged frog and pond turtle.	PS	<b>12-4: Implement Measures to Protect Foothill Yellow-Legged Frog and Northwestern Pond Turtle.</b> The County and its contractor shall implement the following measures to reduce impacts on foothill yellow-legged frogs and northwestern pond turtles: <ul style="list-style-type: none"><li>Construction of foot bridges and trails across smaller drainages shall occur when the drainages are dry, to the extent feasible.</li><li>Before any work in Coon Creek, the County shall determine, in consultation with DFG, whether aquatic habitat at work sites would support foothill yellow-legged frog and/or northwestern pond turtle habitat. If no aquatic habitat for foothill yellow-legged frog or northwestern pond turtle habitat occurs at a work site, there would be no impacts on these species and no further mitigation is required.</li><li>If aquatic habitat for foothill yellow-legged frog and/or northwestern pond turtle is present at work sites, the County shall minimize impacts on these species by implementing the following measures:<ul style="list-style-type: none"><li>Worker awareness training shall be provided to construction crews working in foothill yellow-legged frog and northwestern pond turtle habitat. At a minimum, the training shall include a description of foothill yellow-legged frog and northwestern pond turtle and their</li></ul></li></ul>	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>habitats and their importance, general measures that are being implemented to conserve foothill yellow-legged frog and northwestern pond turtle as such measures relate to the project, and the boundaries within which construction activities shall occur.</p> <ul style="list-style-type: none"> <li>• Suitable foothill yellow-legged frog and northwestern pond turtle aquatic habitat shall be surveyed within 2 weeks before the start of construction activities. If northwestern pond turtles or foothill yellow-legged frogs, tadpoles, or eggs are found, they may be moved from the project area only with DFG approval. If neither northwestern pond turtle nor foothill yellow-legged frog is identified, construction may proceed.</li> <li>• A qualified biologist holding the appropriate permits shall be present at active work sites until the removal of foothill yellow-legged frog and northwestern pond turtle, instruction of workers, and habitat disturbance have been completed. After this time, the County shall designate a person to monitor on-site compliance with all minimization measures.</li> <li>• If any work site will be temporally dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters. Water shall be released downstream at an appropriate rate to maintain downstream flows during construction and in such a manner as to prevent erosion. Dewatering structures shall be removed upon completion of the project.</li> <li>• Guidelines shall be implemented to protect water quality and prevent erosion, as outlined in the BMPs in Mitigation Measure 11-1, "Obtain Authorization for Construction Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required."</li> </ul>	

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>12-4: Potential Disturbance of Nests of Raptors and Other Birds.</b> Trees and other vegetation in and adjacent to the project area provide potential nest sites for raptors and migratory birds. Removal of trees or other vegetation during construction and maintenance of trails and fuel breaks and for road improvements could destroy or disturb nests, resulting in loss of eggs or young. Use of the Park by reservation-based events may also cause nest failure. Use of trails could cause potential temporary disturbance to golden eagle nest sites.	PS	<b>12-5: Implement Measures to Protect Raptors and Other Nesting Birds.</b> The County and its contractors shall implement the following measures to reduce impacts on raptors and other nesting birds: <ul style="list-style-type: none"><li>▶ If trees larger than 6 inches dbh must be removed, then the following mitigation measures shall be implemented:<ul style="list-style-type: none"><li>• Tree removal shall be completed in accordance with the Placer County Tree Ordinance.</li><li>• For any construction activities that take place between March 1 and August 31 (raptor breeding season), preconstruction or pre-event surveys for active raptor nests shall be conducted no more than 2 weeks prior to the start of the activity. If no active raptor nests are found, no further mitigation is required. If any active raptor nests are identified during surveys, then impacts on active raptor nests shall be avoided by establishing minimum buffers of 500 feet (0.25 mile for golden eagle) until young have fledged or the nest is otherwise no longer active. These buffers may be reduced if a qualified biologist determines that such a reduction would not risk failure of a nest.</li></ul></li><li>▶ If active golden eagle nests are located within 0.25-mile of public trails or roads, the County shall:<ul style="list-style-type: none"><li>• Notify DFG of the nest; and</li><li>• Cooperate with DFG in implementation of measures to protect the nests during nesting.</li></ul></li></ul>	LTS
<b>12-5: Potential Disturbance of Dens and Individual Ringtails.</b> Trees along riparian portions of the project area such as Coon Creek that are 6 inches or greater dbh and are hollow or have large cavities provide potential den sites for ringtail. Removal of such trees or other vegetation during trail construction and for road improvements could destroy dens, resulting in potential loss of	PS	<b>12-6: Implement Measures to Protect Ringtail and Townsend's Big-Eared Bat.</b> The County and its contractor shall implement the following measures to protect Townsend's big-eared bat and ringtail: <ul style="list-style-type: none"><li>▶ A qualified biologist shall conduct pre-construction surveys to identify bat hibernation roost and maternity sites and potential</li></ul>	LTS



**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
adults and/or young.		<p>ringtail den sites in suitable habitat within 100 feet of proposed trails (i.e., those areas directly affected by trail construction). For bats, roost habitat surveys should focus on locations of mine tunnels, caves, abandoned buildings, and rock crevices; for ringtail, potential den site surveys should focus on locations of trees 6 inches dbh or greater in riparian areas.</p> <ul style="list-style-type: none"> <li>▶ The County shall avoid locating trails within 100 feet of bat roosts and ringtail dens. If avoidance is not possible, the County shall survey those locations to determine if they are occupied by the target species. If sites are not occupied, they may be sealed or removed in accordance with the following specifications: <ul style="list-style-type: none"> <li>• Potential Townsend's big-eared bat nursery roosts may be sealed from September through March, before the nursery season. The County shall verify that the potential roost is not occupied immediately before sealing it.</li> <li>• Potential Townsend's big-eared bat hibernation roosts may be sealed from April through October, prior to before the hibernation season. The County shall verify that the potential roost is not occupied immediately before sealing it.</li> <li>• Potential ringtail den sites may be removed only from September through April. The County shall verify that the potential den is not occupied immediately before sealing it.</li> </ul> </li> </ul>	
<b>12-6: Potential Disturbance of Townsend's Big-Eared Bat Habitat or Individuals.</b> Limited habitat for Townsend's big-eared bats occurs in the project area. Construction of trails, bridges, and structures could result in the disturbance of Townsend's big-eared bat maternity or winter roosts.	PS	<b>12-6: Implement Measures to Protect Ringtail and Townsend's Big-Eared Bat.</b> (Please see description above in Mitigation Measure 12-6.)	LTS

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>12-7: Potential Loss of Brandegee's Clarkia.</b> Populations of Brandegee's clarkia were documented in the Spears Ranch portion of the Park. Construction of trails, fuel breaks, and road improvements along Garden Bar Road could potentially disturb known populations of Brandegee's clarkia.	PS	<b>12-7: Implement Measures to Protect Brandegee's Clarkia.</b> The County and its primary contractor shall implement the following measures to protect Brandegee's clarkia populations: <ul style="list-style-type: none"><li>▶ The locations of known Brandegee's clarkia occurrences in the project area shall be clearly marked for avoidance by construction crews before the commencement of project construction activities.</li><li>▶ If construction activities cannot avoid Brandegee's clarkia occurrences, then prior to commencement of construction, the following measures shall be implemented:<ul style="list-style-type: none"><li>• Information on Brandegee's clarkia occurrences in the project area shall be recorded on California Native Species Field Survey Forms and submitted to the CNDDDB.</li><li>• Seed from Brandegee's clarkia populations shall be collected and redistributed into suitable habitat by a qualified botanist. Seed shall be distributed over an area twice the size of the affected area. Because Brandegee's clarkia is an annual plant that is tolerant of some disturbance, this measure will allow the perpetuity of populations in the project area and minimize the impact of project activities.</li></ul></li></ul>	LTS
<b>12-8: Impacts on Waters of the United States and Waters of the State.</b> A preliminary wetland delineation identified approximately 31.5 acres of potentially jurisdictional waters of the United States and waters of the state on the Spears Ranch property and along Garden Bar Road. Although the majority of this area would be avoided and not affected by project implementation, installation of stream crossings and bridges, viewing boardwalks, and trail construction in the project area and road improvements along Garden Bar Road could result in the fill of jurisdictional waters of the United States and waters of the state, including wetlands.	PS	<b>12-2: Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State.</b> (Please see description above in Mitigation Measure 12-2.)	LTS

<p><b>Table 2-2</b> <b>Summary of Environmental Impacts and Mitigation Measures</b></p>			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p><b>12-9: Impacts on Oak Woodland Habitat.</b> The proposed project may result in the removal of trees that are 6 inches dbh or larger from oak woodland habitat. Native oak trees are protected under the Placer County Tree Ordinance and SB 1334.</p>	PS	<p><b>12-8: Protect Oak Woodland Habitat.</b> If removal of native trees larger than 6 inches dbh is required during construction of the proposed project, the County shall compensate for removal of those trees by paying in-lieu fees into the County approved oak woodland preservation fund as stipulated in the Placer County Tree Ordinance and in consultation with a certified arborist.</p>	LTS
Public Services and Utilities (Chapter 13.0)			
<p><b>13-1: Potential for Damage to Water or Wastewater Facilities.</b> Implementation of the proposed project would require the installation of up to two groundwater wells and a septic system within the Spears Ranch portion of the Park, and the existing groundwater well and septic system could be upgraded or abandoned and replaced as part of the project. The project would not damage any public water or wastewater facilities.</p>	LTS	No mitigation necessary.	LTS
<p><b>13-2: Increase in Demand for Police Services.</b> Use of the proposed Park would increase demand for police services in the project area. However, measures would be taken to minimize such demand.</p>	LTS	No mitigation necessary.	LTS
<p><b>13-3: Increase in Demand for Fire Services.</b> Construction and use of the Park facilities may increase the risk of wildfire in the Spears Ranch portion of the Park because more people would be allowed into an area that is not currently open to the public. However, the County would implement measures to reduce the potential for a fire within the Park. Therefore, the project is not expected to cause a significant increase in demand for fire services.</p>	LTS	No mitigation necessary.	LTS
<p><b>13-4: Increase in Emergency Response Times.</b> The proposed project may cause an increase in demand for emergency services. However, adequate access to the proposed Park would be provided for emergency vehicles. Therefore, current emergency response times are not expected to increase.</p>	LTS	No mitigation necessary.	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>13-5: Temporary Disruption of Utility Service during Construction.</b> Implementation of the proposed project could require the relocation of utility poles that are adjacent to Garden Bar Road. Relocation of utility poles could cause temporary disruptions in service.	LTS	No mitigation necessary.	LTS
<b>13-6: Increase in Solid Waste and Wastewater Generation.</b> Operation of the Park would increase generation of solid waste and wastewater on the Spears Ranch portion of the Park and would increase the demand for solid waste disposal services. However, solid waste and wastewater generated by the project are expected to be minimal. In addition, the County would contract with Auburn Placer Disposal to provide solid waste disposal service to the Park and the on-site sewage disposal system and/or vault system would be designed to accommodate Park use.	LTS	No mitigation necessary.	LTS
<b>Hazardous Materials and Hazards (Chapter 14.0)</b>			
<b>14-1: Potential for Fire to Occur during or after Construction.</b> The potential exists for wildfire to occur during or after project construction. However, as part of the project, the County would implement management actions and fire response facilities that would reduce the risk of wildfire.	LTS	No mitigation necessary.	LTS
<b>14-2: Potential for Release of Hazardous Materials during Construction or Operation.</b> Park construction and maintenance equipment may use small amounts of hazardous materials. The proposed project would comply with all applicable federal and state regulations pertaining to handling of hazardous materials and worker health and safety; however, accidental spills or other releases of small amounts of hazardous materials could occur during construction or operation of the Park.	PS	<b>14-1: Implement Measures to Reduce Hazards Associated with Potential Releases of Hazardous Materials.</b> The County shall ensure that the following measures are implemented before project construction begins: <ul style="list-style-type: none"> <li>▶ The County or the County's contractor shall prepare and implement an accidental-spill prevention and response plan for storage and use of hazardous materials during trail construction and maintenance. This plan shall identify measures to prevent accidental spills from leaving the area and methods for responding to and cleaning up spills before</li> </ul>	LTS

**Table 2-2**  
**Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>neighboring properties are exposed to hazardous materials.</p> <ul style="list-style-type: none"><li>▶ The County shall ensure that any employee handling hazardous materials is trained in the safe handling and storage of hazardous materials and is trained to follow all applicable regulations with regard to such hazardous materials.</li><li>▶ The primary construction contractor shall identify a staging area where hazardous materials will be stored during construction, in accordance with applicable state and federal regulations.</li></ul> <p><b>5-1: Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required.</b> (Please see description above in Mitigation Measure 5-1.)</p>	
<b>14-3: Potential for a Public Safety Hazard from Hunting Activities.</b> Activities allowed in the Park would include hunting of legal game and hunting to control damage to the Park, especially wild pigs. Hunting activities could conflict with other recreational activities occurring in the Park. However, measures would be implemented to protect the visiting public and surrounding residents from hunting activities.	LTS	No mitigation necessary.	LTS
<b>14-4: Potential Exposure of People to Hazardous Materials.</b> Although there have been no recorded releases of toxic materials in the project area, the Asbestos Building Material and Lead-Based Paint Survey Report concluded that several on-site buildings likely contain ACMs and LBP. In addition, several remnant mining or prospecting resources are located on-site that could contain hazardous materials.	PS	<b>14-2: Prepare and Implement a Safety Hazard Plan and Conduct Soil Sampling.</b> To avoid health risks to construction workers, Placer County shall require the contractor to prepare and implement a site health and safety plan if areas containing hazardous materials are to be disturbed. This plan will outline measures that will be employed to protect construction workers and the public from exposure to hazardous materials during remediation, demolition, and construction activities. The County shall consult with the contractor to determine the measures to be employed at the site, which could include posting notices, limiting access to the site, monitoring the air quality, watering, and	LTS

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>installation of wind fences. Contractors shall be required to comply with state health and safety standards for all demolition work, including compliance with OSHA and Cal/OSHA requirements regarding exposure to ACMs and LBP.</p> <p>For any prospecting or mining resources (Abandoned Mine Lands) that are in close proximity to a project facility, a Phase 2 Limited Soil Sampling (soil sampling) shall be conducted to determine if there are any hazardous materials present on-site. The soil sampling of the tailings shall be conducted during the entitlement process (i.e. conditional use permit). Soil sampling will determine the California Human Health Screening Levels (CHHSL) of the testing protocol (CAM 17 metals, a list of 17 metals found typically in hazardous materials and mining sites). The CHHSLs are a list of 54 hazardous chemicals in soil or soil gas that the California Environmental Protection Agency (CalEPA) considers to be below thresholds for risks to human health.</p> <p>The soil sampling results shall be reviewed by Placer County Environmental Health Services. If the soil sampling results are above the CHHSLs, then Placer County Environmental Health Services would refer the project to the DTSC. DTSC requires the project proponent to enter their Voluntary Cleanup Agreement (VCA) program. The VCA typically requires more soil testing to determine the scope of the contamination area. Furthermore, DTSC may require a Preliminary Endangerment Assessment (PEA) and/or a removal action workplan (RAW). The PEA is used to discuss the health risks associated with hazardous materials site releases and the RAW is used to specifically detail the areas of the project area to have soil removed and the contaminated soils disposal at an appropriate solid waste facility. Following soils removal, DTSC issues a “No Further Action” letter indicating that the project site is safe.</p> <p>In addition, the contractor shall prepare and implement a site plan that identifies necessary remediation activities appropriate for</p>	

**Table 2-2  
Summary of Environmental Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		proposed land uses, including excavation and removal of on-site contaminated soils, and redistribution of clean fill material within the project area. The plan shall include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the project area. In the event that contaminated groundwater is encountered during site excavation activities, the contractor shall report the contamination to appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The contractor shall be required to comply with the plan and with applicable local, state, and federal laws.	
<b>14-5: Increased Risk of Health Hazard from Vector-borne Diseases.</b> There are existing stock ponds on the Spears Ranch portion of the Park and several new fishing ponds could be constructed as part of the project. These ponds could serve as potential habitat for mosquitoes. The project would also increase the number of people in an area that could contain several mosquito-breeding sites and therefore would increase the number of people potentially exposed to vector-borne diseases carried by mosquitoes. However, the County would coordinate with the Vector Control District to ensure these sites are not a hazard to the public.	LTS	No mitigation necessary.	LTS

## **3.0 PROJECT DESCRIPTION**

The Hidden Falls Regional Park Project (proposed project or project) involves access and recreation improvements at a regional park proposed by the Placer County (County) Department of Facility Services. The “project area” discussed below refers to the Spears Ranch property and the parking area on the Didion Ranch property, which make up a portion of the regional park, along with a portion of Garden Bar Road. This chapter provides information on the proposed project’s location, objectives, facilities, construction techniques, maintenance, and permitting requirements. Alternatives to the proposed project are presented in Chapter 15.0, “Other CEQA Sections.”

### **3.1 PROJECT LOCATION**

The proposed project is located between north Auburn and the City of Lincoln in Placer County, in the Sierra Nevada foothills approximately 40 miles northeast of Sacramento. The approximately 1,200-acre Hidden Falls Regional Park (Park) consists of the properties formerly known as Spears Ranch (979 acres) and Didion Ranch (221 acres) (Exhibits 3-1 and 3-2). The project area includes portions of Coon and Deadman Creeks and is located south of the Bear River. The Hidden Falls property is bordered on all sides by private property. In the project area, Garden Bar Road is located to the west; Mt. Vernon and Mt. Pleasant Roads are to the south; Bell Road and Hubbard Road are to the east; and Big Hill Road is to the north.

### **3.2 CHARACTERISTICS OF THE PROJECT AREA**

The Park is located in an unincorporated area of Placer County. The project area has been used for cattle grazing in the recent past, and portions of the property continue to be used for grazing. The Park and the surrounding area are characterized by blue oak woodland and oak-foothill pine woodland. Coon Creek flows from the northeastern portion of the property to the westernmost property boundary. Deadman Creek flows from the southeastern boundary and is confluent with Coon Creek within the Park. Several intermittent tributaries flow into Coon Creek from both the north and south. On-site creeks flow to the Feather River. Adjacent land uses include rural residential home sites and agriculture, mostly in the form of cattle grazing.

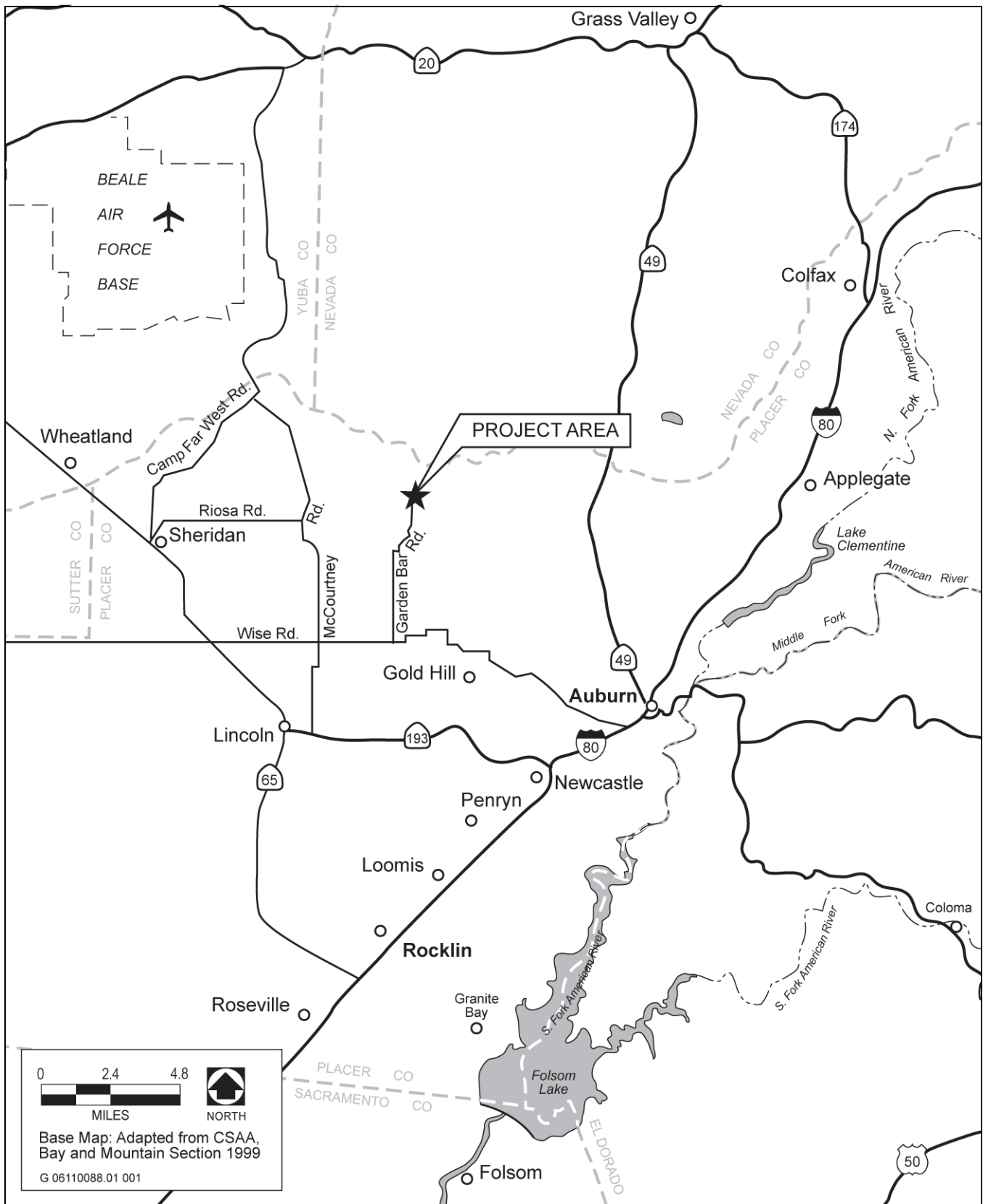
The Big Hill area of Placer County including the project area and area to the north has been identified as a strategic opportunity area for land conservation because of the relatively undeveloped stretches of the Coon Creek and Bear River watersheds, blue oak woodland and other habitats, value as a connected migration corridor with protected areas to the north such as the Spenceville Wildlife Area in Yuba County, and the large intact parcel sizes in the area. Exhibit 3-3 shows the properties in the vicinity of the Park and the Big Hill Area that are currently held in perpetuity for conservation purposes. Trail connectivity is being planned to link the Park to the Placer Land Trust parcels to the northeast, contingent upon successful acquisition of trail access rights through linking parcels.

### **3.3 PROJECT OBJECTIVES**

Project objectives represent the overarching goals and purpose of a proposed project. They are used to guide the definition of project as a screening tool in evaluating project alternatives. The County has developed the following objectives for the proposed project.

- ▶ Create an open space park consistent with the goals of the Placer Legacy Open Space and Agricultural Preservation Program (Placer Legacy Program).
- ▶ Provide adequate opportunities to a wide variety of park users to access a breadth of features within Hidden Falls Regional Park intended for public passive recreational and educational access without overburdening the natural resources and functional capacity of the site and appurtenant roadway system.
- ▶ Protect open space and blue oak woodland habitat for special-status species within Placer County.

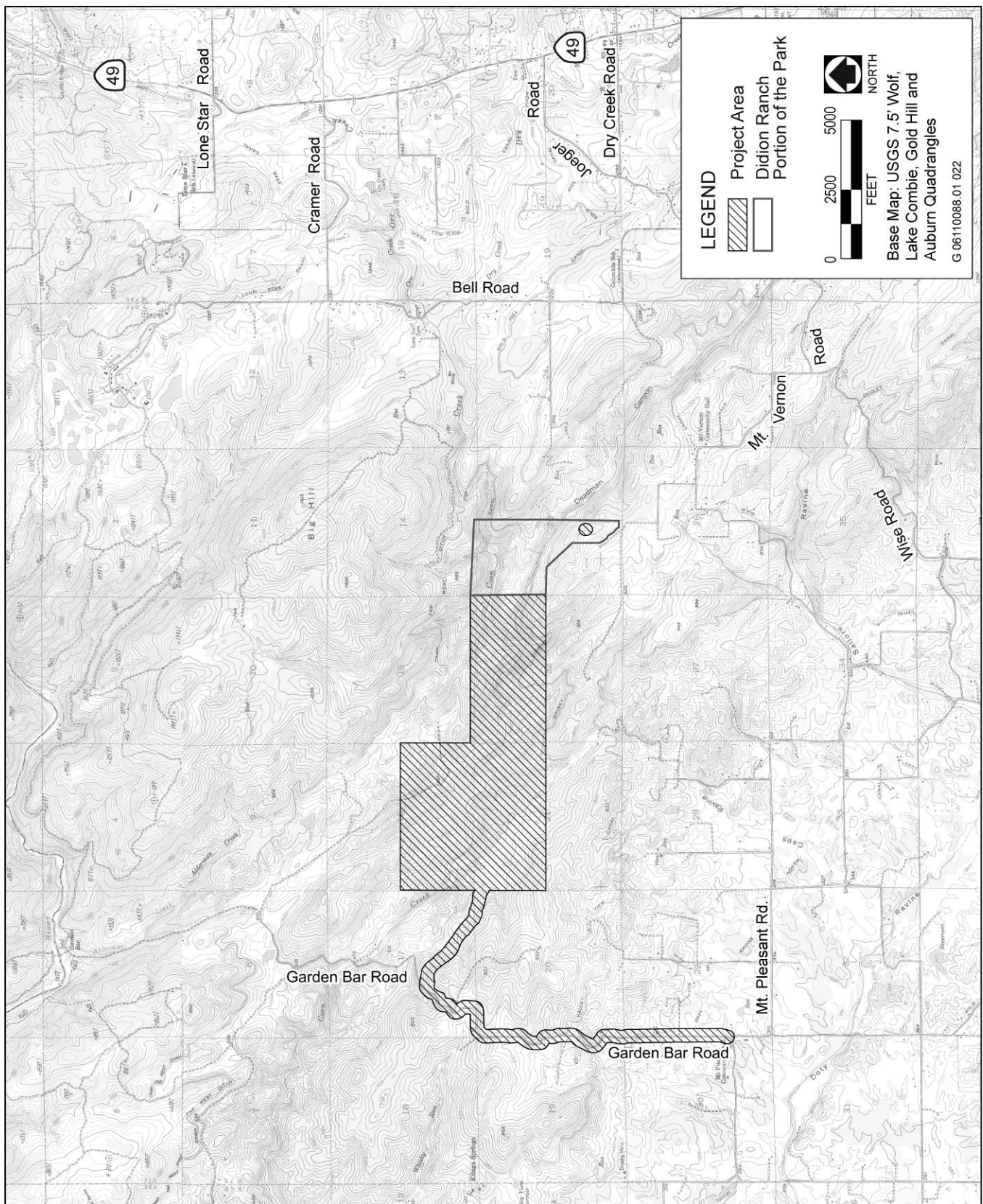




Source: Data provided by EDAW in 2006

## Vicinity Map

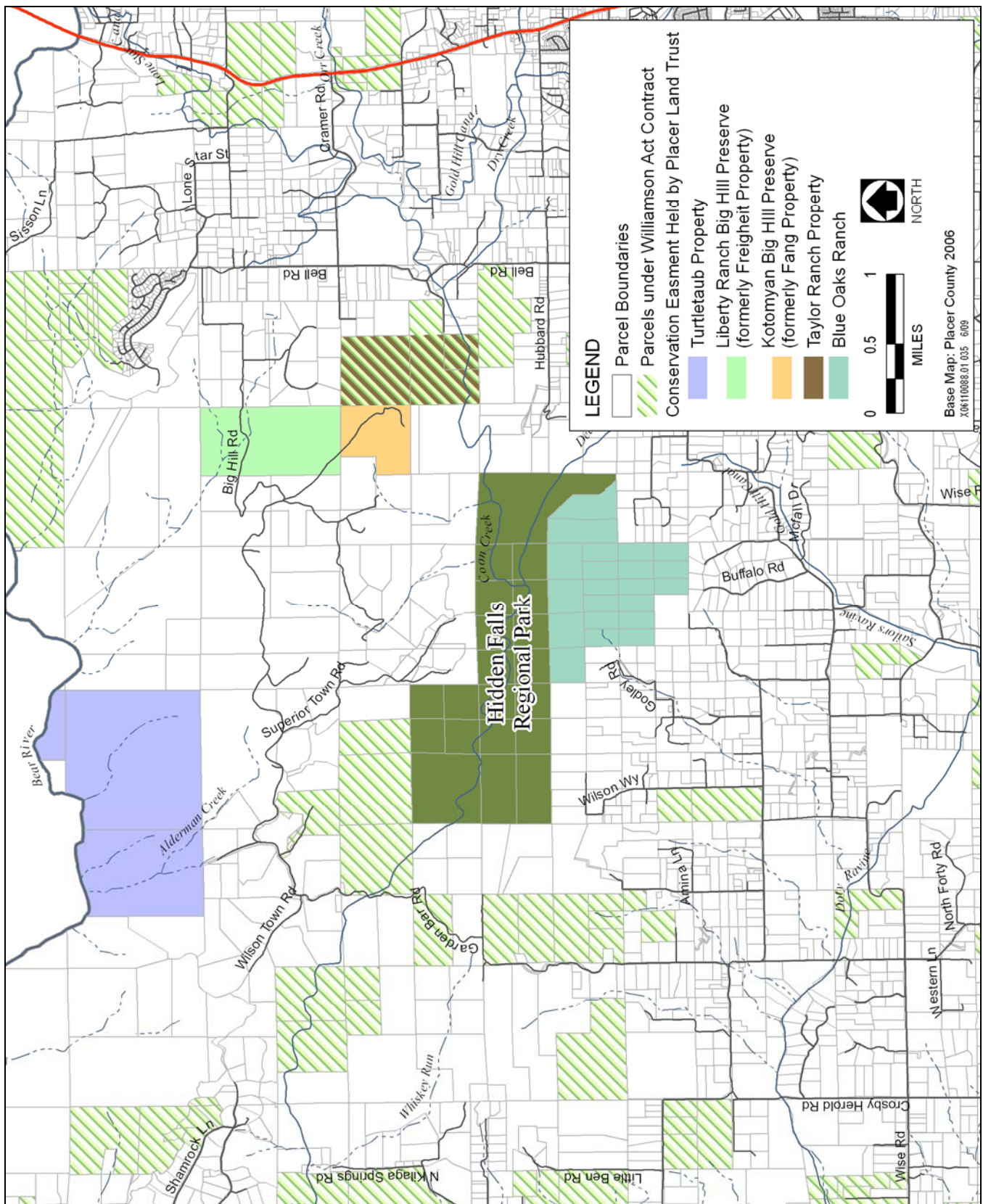
## Exhibit 3-1



Source: Data provided by EDAW in 2007

## Project Location Map

## Exhibit 3-2



Source: Data provided by Placer County in 2002

## Big Hill Area Conservation Areas

## Exhibit 3-3

- ▶ Design a multiple-use, natural-surface trail system that will provide recreational opportunities for the residents of Placer County, while maintaining safety for park users, visitors, and nearby residents.
- ▶ Develop a project that minimizes the need for maintenance, thereby reducing long-term costs and environmental impacts.
- ▶ Develop a project that supports the future ability to create natural, cultural, and historic education and interpretive opportunities for youth and adults, fostering stewardship and environmental awareness.

### **3.4 DESCRIPTION OF THE PROPOSED PROJECT**

The proposed project would develop phased recreation and access facilities on the 979-acre former Spears Ranch property and would expand the existing parking area on the Didion Ranch portion of the Park to provide opportunities for passive recreation (i.e., hiking, biking, horseback riding) on the entire 1,200-acre Hidden Falls Regional Park. In addition, the project would improve access to the western portion of the property, including an on-site staging/parking area with access from Garden Bar Road. Various recreational/educational uses for the existing ranch house and site buildings are being considered including use as a nature/cultural education center and/or conference facility. The potential for overnight use of the ranch house area is being considered including the provision of bunkhouses near the ranch house.

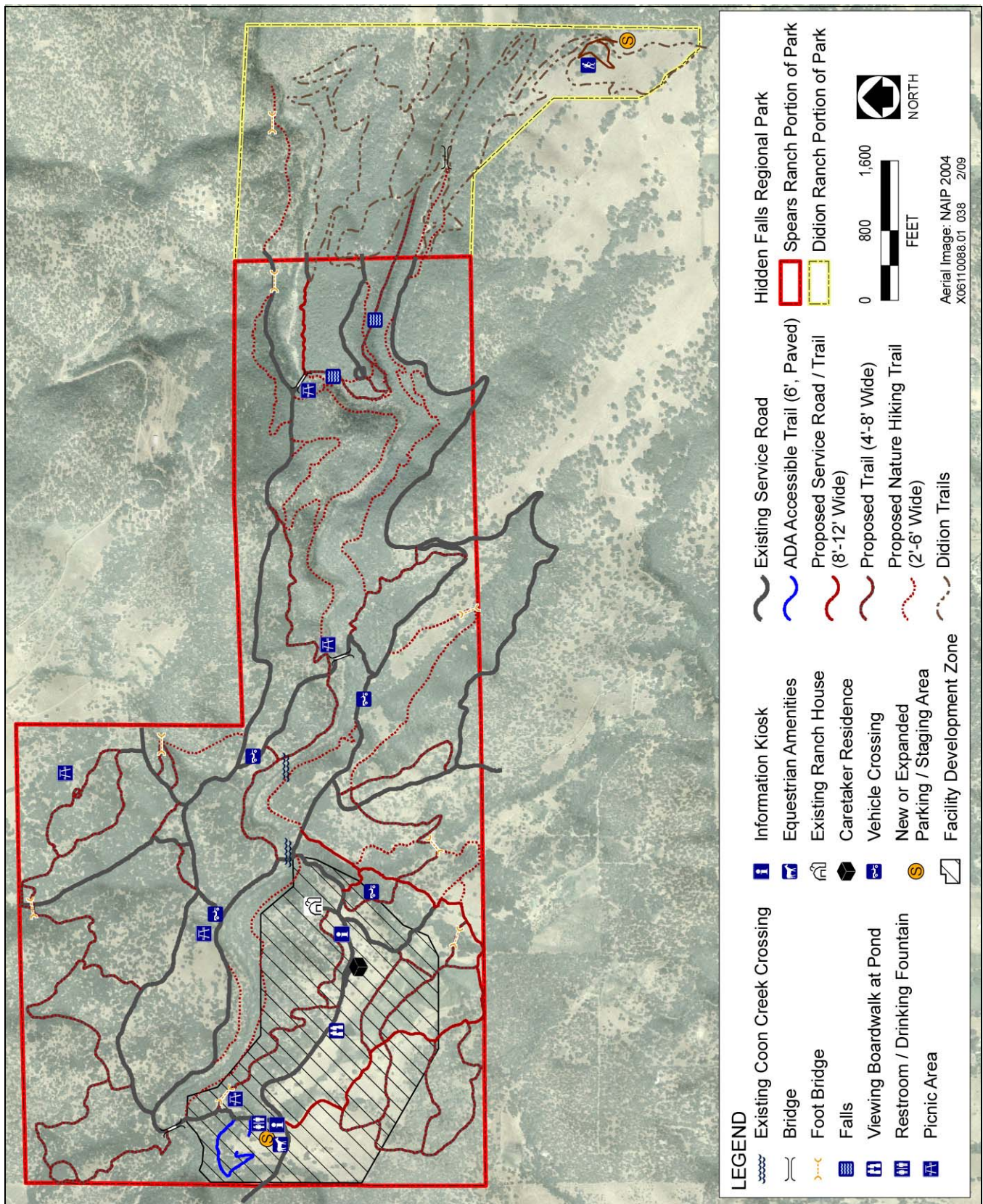
A previously disturbed area within the Park has been identified as a facility development zone shown in Exhibit 3-4. The facility development zone is generally located in the southwestern portion of the Park, including the area surrounding the existing ranch house and the proposed parking/staging areas. Most future building and staging development within the Park would occur within the facility development zone. The exact location of individual facilities could vary within this zone as detailed design is prepared in the future. Other facilities (e.g., trails, picnic areas, bridges, vault/temporary toilets) would be located both inside and outside of the facility development zone.

#### **3.4.1 TRAIL SYSTEM AND PARK AMENITIES**

Specific features and uses that are part of the proposed project for the Park are as follows:

1. Approximately 14 miles of new multiple-use, natural-surface trails in addition to more than 10 miles of existing ranch roads for hikers, mountain bikers, and equestrians within the Spears Ranch portion of the Park. Exhibit 3-4 depicts the planned trail system designed by County staff and consultants with input from the Hidden Falls Trails Forum. This trail map would guide initial construction; however, the County would make adjustments to the trail network to promote desirable user patterns and other operational needs subject to avoidance of sensitive areas and adherence to applicable permit requirements;
2. Trail and bridge connections to other public trails near the Park property (in addition to the trail network constructed on-site);
3. American's with Disabilities (ADA) accessible trails including access for ADA vehicles;
4. Bridge crossings over Coon Creek and other streams to support the trail network, provide emergency access, connect to the existing trail system within the Didion Ranch portion of the Park, and provide access to the portion of the Park north of Coon Creek;
5. Culvert and rock-lined stream crossings over intermittent drainages to support the trails network;





Source: Placer County 2006

## Proposed Hidden Falls Park Features

## Exhibit 3-4

6. Groundwater wells for drinking water and restrooms as required to accommodate Park needs; irrigation water from the canal system may continue to be used for major irrigation activities and fire suppression facilities.
7. Fire suppression facilities (i.e., helistops for emergency use and an emergency water system);
8. Equestrian facilities (e.g., horse watering facilities, hitching posts);
9. Picnic areas throughout Park to accommodate use, including covered pavilions;
10. Benches and rest areas throughout the Park;
11. Enclosed bear-proof trash receptacles throughout Park to accommodate use;
12. Suitable landscaping around parking areas and restrooms;
13. Improvements to facilitate public access to viewing areas (e.g., overlook at Coon Creek Falls);
14. A disc golf course may be developed that would generally coincide with areas of shaded fuel breaks and other upland areas where the foot traffic pattern would not impact sensitive areas and/or would be beneficial to ongoing vegetation management/fire risk reduction objectives;
15. Drinking fountains;
16. Access to fishing locations along Coon Creek and/or ponds developed in coordination with the California Department of Fish and Game (DFG);
17. New fishing ponds may be developed in conjunction with the fuel load reduction and/or grazing plans and in coordination with DFG;
18. Film and theater production, subject to County Film Permit requirements;
19. Managed hunting of legal game and nuisance species during times of Park closure. Hunting would be allowed for up to two 2-day seasons per year with 10 hunting permits being issued per season or through depredation permits (e.g., for feral pigs);
20. Interpretive programs, including signage, displays, and/or guided tours; and
21. A group camping area with one or more formalized fire pits, a group tent area, and/or bunkhouses for scheduled, supervised overnight use within the facility development zone.

### **3.4.2 VEHICLE ACCESS, PARKING, AND ROAD IMPROVEMENTS**

Public access to the Park would be provided via Garden Bar Road and Mears Drive. Park visitors would use the existing access road/easement from Garden Bar Road to the proposed western parking area. Vehicle access to the Park would be expanded in phases as funding becomes available as described in Table 3-1.

The proposed project is anticipated to generate as many as 128 weekday and 230 weekend vehicles round trip per day. Phased parking amenities include a 50-stall surfaced parking area to accommodate anticipated uses and a gravel equestrian parking area, a gravel overflow parking area, a parking area to accommodate the nature center, and a handicapped accessible parking area near the emergency access bridge. In addition, the existing parking area on the Didion Ranch portion of the Park would be expanded from 55 parking spaces (i.e., 50 for cars, five for trucks and trailers) to 82 (i.e., up to 25 additional paved stalls and 12 additional truck and trailer spaces) including relocation of the adjacent helistop immediately south of the existing location.

**Table 3-1  
Summary of Park Access Phasing**

Permitted Access	Corresponding Improvements
<b>PHASE 1</b>	
<ul style="list-style-type: none"> <li>▶ Trail and emergency access system would be completed throughout the Park and opened for daily public use via existing Mears entrance</li> <li>▶ Daily public vehicle access would be restricted to existing Mears entrance</li> <li>▶ Didion Ranch parking area would be expanded from 55 parking spaces to up to 82 parking spaces (i.e., up to 25 additional paved stalls and 12 additional truck and trailer spaces) including relocating the adjacent helistop.</li> <li>▶ Garden Bar entrance would continue to be used by County employees, tenants, contractors, consultants, utility providers, maintenance trucks, and fire and law enforcement personnel without additional improvements</li> <li>▶ Development of existing ranch house may proceed during Phase 1</li> <li>▶ Occasional classroom sized groups would be permitted to access site through Garden Bar entrance on appointment basis (gates would be opened and closed behind groups)</li> <li>▶ A handicap-placard-only parking area may be constructed near the emergency access bridge. Park use would be regulated through the Placer County Parks Division reservation system.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Prior to allowance of classroom sized groups, a new public access gate and approximately 200 feet of connecting road to existing access road would be constructed at the intersection of Garden Bar Road near the existing access road.</li> <li>▶ Prior to allowance of classroom sized groups, a 48 inch high 12.5-gauge woven wire field fence would be constructed along both sides of access road between Garden Bar Road and Park entrance. (as applicable per the terms of the Purchase and Sale Agreement with the Spears family)</li> <li>▶ Prior to allowance of classroom sized groups, two cattle guards would be installed at each end of the access road between Garden Bar Road and the Park entrance. (as applicable per the terms of the Purchase and Sale Agreement with the Spears family)</li> <li>▶ Up to 25 additional paved parking stalls and up to 12 additional equestrian parking stalls may be developed at the existing Mears entrance (Placer County 2003).</li> </ul>
<b>PHASE 2</b>	
<p>In addition to Phase 1 Access:</p> <ul style="list-style-type: none"> <li>▶ Daily public automobile access would be allowed to the new parking area at western end of property via Garden Bar Road.</li> <li>▶ Equestrian trailers would be excluded from the western parking area and from entering the Park via Garden Bar Road. Equestrians would continue to enter the Park via Mears entrance.</li> <li>▶ Reservation-based events consistent with passive recreation and education with 200 attendees or less at one time would be allowed by County Parks Division reservation.</li> <li>▶ Use of ranch house for educational and/or meeting purposes would remain regulated by County Parks Division reservation system and/or use agreements.</li> </ul>	<p>In addition to Phase 1 Improvements:</p> <ul style="list-style-type: none"> <li>▶ New parking area would be constructed at western end of property to include 50 stall paved parking lot and gravel overflow area.</li> <li>▶ Widen Garden Bar Road from Mt. Pleasant Road to access road to 18 feet of hard surface with 2-foot shoulders where feasible subject to County review and approval.<sup>1</sup></li> <li>▶ Vertical curves along Garden Bar Road would be improved in accordance with traffic safety report recommendations subject to County review and approval.</li> <li>▶ Signing and striping improvements along Garden Bar Road would be made in accordance with traffic safety report recommendations subject to County review and approval.</li> <li>▶ Improve the access road from Garden Bar Road to the western parking area to 24 feet wide all weather surface with 2-foot shoulders where feasible subject to County review and approval<sup>1</sup>.</li> <li>▶ Install a gate between the western parking area and the ranch house to prevent unrestricted vehicle access beyond parking area into remainder of property.</li> </ul>
<b>PHASE 3</b>	
<p>In addition to Phase 1 and 2 Access:</p> <ul style="list-style-type: none"> <li>▶ Daily public access for equestrian trailers would be allowed to the western parking area via Garden Bar Road.</li> </ul>	<p>In addition to Phase 1 and 2 improvements:</p> <ul style="list-style-type: none"> <li>▶ A gravel equestrian staging area would be constructed adjacent to the new paved parking area to allow parking for up to 20 horse trailers.</li> <li>▶ Widen Garden Bar Road from Mt. Pleasant Road to the access road to 20 feet of hard surfacing with 2-foot shoulders where feasible subject to County review and approval.<sup>1</sup></li> <li>▶ Horizontal curves along Garden Bar Road would be improved in accordance with traffic safety report recommendations subject to County review of improvement plans.</li> </ul>
<p><sup>1</sup> In areas along Garden Bar Road and the access road from Garden Bar Road to the Park entrance where the County determines that status trees, significant rock outcroppings, and other valuable natural features within the proposed widening corridor should be preserved or where adequate road right-of-way does not currently exist and is not obtainable through market value based willing seller negotiations, alternatives such as turnouts, striping, and/or signage may be considered and approved in lieu of full width widening for those discreet areas.</p>	

### 3.4.3 EDUCATIONAL USES AND USE OF EXISTING FACILITIES

Educational uses within the Park may include:

- ▶ rehabilitation of the existing ranch house to function as a nature/cultural education/conference center.
- ▶ agricultural, cultural, scouting, and informational/educational classes and programs;
- ▶ multiple-day or overnight educational, agricultural, cultural, and scouting camps (subject to agreement and conditions determined by the County on a case-by-case basis) including a commercial kitchen. Overnight activities would be confined to the facility development zone; and
- ▶ access for school programs, such as cross-country training and meets, and educational field trips that are consistent with passive recreation and education.

Any large events that would exceed the capacity of the on-site restrooms would need to supply portable toilets, and events with 200 individuals or more would be required to obtain a Temporary Event Permit from the County and would undergo separate environmental review. Size, timing, duration, and other variables related to these events are not known at this time, therefore, consistent with other County Park operations, these would separate environmental review would be needed as part of the permit application process.

A variety of renovation and use options are being considered for the existing ranch house. Uses under consideration include:

- ▶ a nature education center with meeting room facilities;
- ▶ a classroom;
- ▶ an event facility;
- ▶ a volunteer and information center;
- ▶ interpretive and educational displays; and
- ▶ an environmental education camp.

The two existing former residences and outbuildings located southwest of the ranch house would be demolished. Similar sized buildings may be erected within the facility development zone for use as a maintenance shop or caretaker residence, or they would be incorporated into an educational/camp program. Up to 10 additional buildings may be constructed for use as bunkhouses near the existing ranch house, if the ranch house is used for overnight camp functions or environmental education. If constructed, these buildings would be located in the proximity of the existing ranch house and would be approximately 16 feet by 28 feet each. In addition, up to two restroom facilities that would be approximately 400 square feet each may be constructed in this area to serve the bunkhouses. One or two campfire pits may also be constructed in this area as part of the overnight camp uses. Campfires would require a permit and would not be allowed outside of the designated fire pit areas or on high fire hazard days as designated by CalFire.

Organized camping accommodation would be subject to the provisions of California Health and Safety Code standards for Camps (Division 13, Part 2.3) and other applicable state and local regulations.

### 3.4.4 FISH AND WILDLIFE HABITAT RESTORATION

Pending identification of implementation and maintenance funding, the following wildlife and habitat restoration elements would be allowed and encouraged along Coon Creek and throughout the project area:

- ▶ fish passage amenities;
- ▶ nesting boxes;



- ▶ natural erosion control along streambanks, roadbeds, and other areas;
- ▶ habitat revegetation projects, including native planting of oak woodlands, grasslands, floodplains, wetlands, and riparian habitat; and
- ▶ protective measures to direct visitors away from protected resources.

### **3.4.5 AGRICULTURE**

Agricultural uses that would be allowed in the Park include:

- ▶ continuation of current grazing agricultural activities;
- ▶ farm management practices (e.g., maintenance of fences, expansion of irrigated pastureland);
- ▶ agricultural research projects conducted by qualified institutions;
- ▶ agricultural education programs; and
- ▶ grazing for specific vegetation management purposes (e.g., use of goats).

### **3.4.6 STREAM CROSSINGS AND DRAINAGE FEATURES**

The proposed trail system would cross Coon Creek in three locations. One bridge would provide access for pedestrians, equestrians, and emergency vehicles and two bridges would provide access for pedestrians, equestrians, and small maintenance vehicles only. Approximately eight pedestrian/equestrian foot bridges would also be constructed over drainages along the trail system including Deadman Creek. Bridges would be designed to fit the rustic character of the surroundings and may include suspension, covered, truss, and/or other designs. Abutments would likely be concrete subject to engineered design. Decking and other structural components may be made of weathering steel, fiberglass, concrete, steel cable or other suitable materials. Local rock or imitation rock may also be used as facing on concrete abutments. Up to 25 additional drainage crossings would require construction or replacement of culverts or the use of rock-lined stream crossings. Rocks would be placed in ephemeral drainages to provide a level surface and prevent erosion.

### **3.4.7 INTERPRETIVE PROGRAM**

A kiosk would be placed at each parking area to provide information to Park users. Kiosks would include informative displays on topics such as water quality, wildlife, habitat, and general park information. Interpretive and directional signage or audio-visual displays, or both, would be placed at key points throughout the property. Interpretive signs would include information on topics such as native and nonnative plants, mining and Native American history in the area, conservation and restoration programs, and wildlife that can be found in the Park.

### **3.4.8 MAINTENANCE FACILITIES**

The Park would include the following maintenance facilities that would be located within the facility development zone:

- ▶ a maintenance yard near the ranch house and parking area, used to store and maintain equipment (e.g., tractors, mowers, all-terrain vehicles);
- ▶ a maintenance shop/barn—either a new building or renovated existing building;
- ▶ irrigation system to support landscaping near parking areas and restrooms if landscaping is installed;
- ▶ security and safety lighting for the maintenance yard; and

- ▶ perimeter and cross fencing to enclose maintenance areas.

If construction of a new maintenance building is necessary, the building would be constructed within the facility development zone.

### **3.4.9 SIGNS, FENCES, AND GATES**

Perimeter fencing around the property would be repaired in kind or replaced with barbless wire. New sections would be constructed of barbless wire as needed. Cross fencing and exclusionary fencing would be constructed in riparian and other sensitive areas throughout the Park and along the access road from Garden Bar Road to the proposed western parking area. Fencing may be constructed of a variety of materials including wood rail, barbless wire, and large rocks. Signage with trail etiquette would be posted at trailheads. Directional signage would be placed along primary public-access routes from both Auburn and Lincoln in addition to the informational signage described above in Section 3.4.7.

### **3.4.10 FIRE SUPPRESSION FACILITIES**

Fire suppression facilities would include emergency water facilities, a new helistop in the Spears Ranch portion of the Park and a relocated helistop in the Didion Ranch portion of the Park. The helistops would be flat unpaved areas where emergency helicopters can land during emergencies. Emergency water facilities would be located between the proposed parking area within the western portion of the property and the existing ranch house to allow for emergency access. Water for the emergency water system could come from Whiskey Diggins Canal, well backup, a potential new Nevada Irrigation District raw water conveyance line, off-site water sources via water trucks, and/or existing or new ponds. The emergency water system would include standard fire hydrants and may include any combination of the following components:

- ▶ 12,000-gallon water tank with gravity flow to the hydrant system;
- ▶ existing and/or new ponds;
- ▶ raw water service to the hydrant system from the Whiskey Diggins Canal; or
- ▶ raw water service to the hydrant system from the proposed Nevada Irrigation District (NID) raw water conveyance pipeline.

## **3.5 USES NOT ADDRESSED IN THIS EIR**

The following uses are not analyzed in this EIR and would not be allowed in the Park:

- ▶ use of motorized vehicles outside of designated access/parking areas, except for motorized wheelchairs, maintenance vehicles, film crews, and vehicles permitted by separate permit;
- ▶ hunting during open Park usage hours;
- ▶ amplified noise;
- ▶ active recreation sports (e.g., soccer, baseball, basketball);
- ▶ lighting other than security and safety lighting around the caretaker residence, maintenance yard, ranch house building, and camp; and

Additional approvals by the County, following supplemental environmental and public review, would be required if any of these uses are considered in the future.

### **3.6 TRAIL AND FACILITY CONSTRUCTION**

Mechanical and hand construction techniques would be used to build the proposed trail system. One or more crews from the California Conservation Corps, licensed contractors, volunteers, and/or County staff would be used to construct the trail system and other facilities.

Vegetation along the trail corridors would be cleared by hand before construction. Vegetation removal along the trail corridors would be minimized to the extent possible; however, a selective vegetation removal within a 15 – 20 foot trail corridor would be performed to accommodate multiple trail uses. Selective vegetation removal means that the trail corridors would not be clear cut. Rather, underbrush, limbs, and select smaller trees would be removed around the trail envelope leaving the trail to meander around larger trees within the corridors. Vegetation removed for trail construction would be chipped or lopped and scattered near the trails. Soil stabilizers and crushed rock, mulch, and/or straw may be needed along the trail tread in some areas to prevent erosion. Topical areas prone to erosion would be stabilized with certified “weed-free” grain straw. The alignment of proposed trails would be located to minimize the removal of native trees greater than 6 inches in diameter at breast height (dbh). Trees larger than 6 inches dbh that are removed would be mitigated with preservation of existing oak woodland within the project area and payment of in-lieu fees for oak woodland preservation consistent with the Placer County Tree Ordinance.

The tread widths of the proposed trail alignments (i.e., the actual surface on which trail users actively place feet, hooves, or wheels) would vary depending on the type of trail. Multiple-use trails would be 4–8 feet wide, service and emergency access roads that can also be used as trails would be 8–12 feet wide, and nature hiking trails would be 2–6 feet wide. Trail widths would vary as needed based on safety considerations and avoidance of biological or cultural resources. The trail tread would be excavated using a Sweco trail dozer, mini excavator, and/or other machinery capable of conforming to the dimensional requirements of the trails. Dips and undulations in the design would follow the natural drainage patterns to facilitate effective surface flow of water off the trail tread.

Construction of parking areas and other recreational facilities would require moving and placing soil, rough and fine grading, installing signage, removing vegetation, paving, installing equipment, finishing, and cleanup. Large equipment such as graders, excavators, pavers, dozers, and haul trucks would be used to construct the proposed roads, parking areas, restrooms, and other facilities. A drainage system would be installed adjacent to parking areas to compensate for any alterations in water flow. Vegetation around the proposed parking areas would be mulched, stockpiled, and placed on exposed areas after construction.

Protective fencing would be installed around sensitive areas during bridge construction and protective measures would be implemented, consistent with Central Valley Regional Water Quality Control Board (RWQCB) regulations, to ensure that concrete residue would not enter Coon Creek.

Construction of the trail system and associated recreational facilities is expected to generate a maximum of 400 delivery trucks. However, construction-related traffic would be spread out over several years as described below in Section 3.6.1, “Construction Schedule.” For Phase 1 of construction, truck traffic is expected to be approximately 10–20% of the total needed or 40–80 truck trips. Construction activities would generally take place Monday through Saturday, although construction activities that are inaudible from areas outside the Park may be permitted on Sundays. From Monday through Friday, work would be allowed between 6 a.m. and 8 p.m. during daylight savings time and between 7 a.m. and 8 p.m. during standard time. Construction activities would be allowed between 8 a.m. and 6 p.m. on Saturdays.

### **3.6.1 CONSTRUCTION SCHEDULE**

The proposed project would be constructed in phases over several years as funding allows. Each phase would allow an additional level of public access to the Park. The project elements included in each phase are described above in Table 3-1. Phases 1 through 3 are addressed in this EIR. Improvements intended to accommodate large events with more than 200 individuals on-site at a given time or large events that would exceed the parking capacity in combination with regular day use are not being proposed at this time and would require a Temporary Event Permit. Temporary Event Permits are issued by the County Community Development Resources Agency (CDRA). CDRA evaluates Temporary Event Permit applications and assigns the appropriate level of environmental review to each application based on the specifics of the proposed event.

Construction of some of the project elements would need to coincide with favorable weather conditions. Vegetation clearing would be scheduled in the nonbreeding season for raptors (September–March) or outside nesting areas documented by preconstruction surveys conducted by a qualified biologist. Bridges would be built during dry periods of the year.

Phase 1 amenities are expected to be constructed and corresponding uses allowed within the next 5 years. Phase 2 and 3 amenities and uses are expected to be constructed in succession following Phase 1 as funding becomes available.

### **3.7 LONG-TERM MAINTENANCE**

The proposed trail system and recreational facilities would be designed to be as low maintenance as possible, although some regular maintenance of the Park facilities would be required. The majority of Park maintenance would be conducted by County staff, volunteers, and user groups.

Trail maintenance would include activities, such as selectively clearing vegetation; regrading trail tread; removing loose rocks, roots, and dead trees; and replacing trail surface material, if necessary. Localized spraying of herbicide may be required along the trail corridor to prevent vegetation from overgrowing the tread. Herbicides would be applied by County staff members certified in herbicide/pesticide application. Additional maintenance may be required as a result of weather-related events (e.g., removal of downed trees and slide removal); routine wear from hikers, mountain bikers, and equestrians; and unauthorized activities such as vandalism. Other maintenance activities, such as litter cleanup and sign repair, would be conducted as necessary.

Material that is low maintenance and weather and graffiti resistant would be used for Park amenities throughout the property. The Park's restroom facilities would be cleaned by a janitorial service on a regular schedule, and the County would generally maintain parking areas and other paved areas, including sealing cracks as needed. The County would also repair, maintain, and winterize the existing ranch house as needed, and inspect and maintain water wells in the project area in accordance with their public water permits.

Oversight of Park activities would be provided through the collective efforts of any combination of County sheriff staff, County maintenance staff, volunteer patrol groups, and/or Park users. The project area is located within the sheriff's patrol district for the Auburn area. A resident caretaker may also be used to help minimize the incidents of vandalism, crime, and misuse of Park property. The Park would be closed at night and all gates on access roads to the Park would be locked, which would further deter unauthorized activities.

### **3.8 ONGOING MANAGEMENT ACTIVITIES**

Current and long-term operation of the Park property requires ongoing management activities to ensure the safety of Park users, maintain existing access, reduce fire risk, minimize erosion, protect habitats, control animal depredation, and manage ongoing ranch operations. These management actions are currently under way and are expected to continue as needed throughout the life of the Park. Under a categorical exemption, the County is

proceeding with some of the actions described below, which are ongoing standard land ownership and management and maintenance practices.

### **3.8.1 FUEL LOAD MANAGEMENT**

Fuel load management and fire reduction measures in the Park would include:

- ▶ thinning vegetation and clearing a defensible space around parking and improvement areas and buildings and maintaining fuel break areas;
- ▶ maintaining fire safe areas adjacent to the main vehicle-access road system within the Park;
- ▶ creating shaded fuel breaks;
- ▶ flagging all work-area boundaries and erecting temporary signs to notify Park users of the work areas;
- ▶ developing a maintenance plan for maintaining areas of defensible space around existing and immediately proposed improvements, roads, and shaded fuel breaks;
- ▶ grazing within the property on a year-round basis or seasonally at or below the property's carrying capacity (i.e., 75 cows);
- ▶ exploring the use of goats or other suitable grazers as a vegetation management tool; and
- ▶ developing additional livestock watering points to help improve livestock distribution.

### **3.8.2 RANCH ROAD MAINTENANCE AND RESTORATION**

- ▶ implement storm water Best Management Practices under guidance of an erosion control specialist.

### **3.8.3 PARK PLANNING AND CONSTRUCTION**

Additional planning and construction activities being proposed for the Park include:

- ▶ evaluating additional amenities and uses that are consistent with the goals of the Placer County General Plan, Placer Legacy Program, and the terms of the use permit as opportunities and demand arise;
- ▶ further developing agricultural uses;
- ▶ developing nature and cultural education elements as resources and programming partners emerge;
- ▶ refining the trail system and associated amenities as user and wear patterns evolve;
- ▶ administering controlled hunting of legal game and nuisance species (e.g., feral pigs) during times of Park closure for population management. Hunting would be allowed for up to two 2-day seasons per year with 10 hunting permits being issued per season or through depredation permits; and
- ▶ demolishing unsalvageable outbuildings.

### 3.9 INTENDED USES OF THIS EIR

An EIR analyzes the environmental effects of a project, indicates ways to reduce or avoid significant and potentially significant environmental effects resulting from the project (i.e., mitigation measures), and identifies alternatives to the project that are also capable of avoiding or reducing project-related significant environmental impacts. An EIR must also disclose significant environmental effects that cannot be avoided, growth-inducing effects, significant cumulative impacts, and effects found not to be significant. The purpose of an EIR is not to recommend approval or denial of the project, but to provide information to aid the public, decision-makers, and permitting agencies in the decision-making process.

#### 3.9.1 REQUIRED PERMITS AND APPROVALS

Permits and approvals required by federal, state, and local agencies for the proposed project are listed in Table 3-2. These permits and approvals are discussed in more detail below.

<b>Table 3-2 Agency Roles and Responsibilities</b>	
<b>Agency</b>	<b>Permit/Approval</b>
U.S. Army Corps of Engineers	Permit under Section 404 of the Clean Water Act
Central Valley Regional Water Quality Control Board	Permit under Section 401 of the Clean Water Act; National Pollutant Discharge Elimination System permit
California Department of Fish and Game	Consultation under the California Endangered Species Act and authorization of incidental take; permit under Section 1602 of the Fish and Game Code (streambed alteration agreement)
U.S. Fish and Wildlife Service	Consultation under the federal Endangered Species Act and authorization of incidental take
Placer County Community Development Resource Agency	Conditional Use Permit
Placer County Department of Public Works	Encroachment permit for Garden Bar Road improvements
Placer County Environmental Health Division	Evaluation of the sewage system permit for the water system
California Department of Public Health	Public water provider's permit (administered by the Placer County Environmental Health Division)
Source: Data provided by EDAW in 2008	

#### U.S. ARMY CORPS OF ENGINEERS

It is anticipated that fill would be placed in jurisdictional waters of the United States as part of the proposed project; therefore, a permit from the U.S. Army Corps of Engineers (USACE) would be required under Section 404 of the federal Clean Water Act. If the project's impacts would be less than 0.5 acre or 300 linear feet, the County would obtain a Nationwide Permit 42 that serves as compliance with the Clean Water Act for dredging and/or fill activities related to the construction of recreational facilities, specifically the creek crossings and bridge installations. If the project's impacts exceed 0.5 acre or 300 linear feet, the County would obtain an individual 404 permit. It is likely that separate applications will be submitted related to facility development within the Park and Garden Bar Road improvements.

## **U.S. FISH AND WILDLIFE SERVICE**

The proposed project has the potential to affect species that are federally listed as threatened or endangered. If take cannot be avoided, consultation would be required under Section 7 of the federal Endangered Species Act. Section 7(a)(2) requires consultation with the U.S. Fish and Wildlife Service to ensure that the proposed project would not jeopardize the continued existence of any listed species. If fill of USACE jurisdictional waters for implementation of the proposed project could result in take of California red-legged frog and Central Valley steelhead, consultation between USACE, USFWS, and NMFS under Section 7 of ESA would be required.

## **CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD**

The proposed project may have the potential to degrade water quality of other waters of the United States as regulated by the Central Valley RWQCB. A water quality certification from the Central Valley RWQCB would be required under Section 401 of the Clean Water Act. An application for Section 401 certification would be submitted to the Central Valley RWQCB with the CEQA documentation.

It is anticipated that the project construction area would exceed 1 acre in size; therefore, a National Pollutant Discharge Elimination System permit would also be required by the Central Valley RWQCB on behalf of the U.S. Environmental Protection Agency (see Chapter 11.0, “Hydrology and Water Quality”).

## **CALIFORNIA DEPARTMENT OF FISH AND GAME**

It is anticipated that the proposed project would affect Coon and Deadman Creeks and/or adjacent riparian habitat; therefore, a streambed alteration agreement from DFG is required pursuant to Section 1602 of the Fish and Game Code. An application for a Section 1602 streambed alteration agreement would be submitted to DFG.

If the proposed project has the potential to affect a state-listed or special-status species, consultation under the California Endangered Species Act would be required. For direct or indirect impacts on state-listed species, an incidental take permit would be required under Section 2081 of the Fish and Game Code. If the state-listed species is also federally listed, a consistency determination would be required under Section 2080.1 of the Fish and Game Code.

## **PLACER COUNTY PERMITS**

An encroachment permit from the County Department of Public Works would be required for proposed road improvements along Garden Bar Road. In addition, a Conditional Use Permit from the County Community Resource Development Agency would be required, and a sewage system evaluation, public well construction permit, small public water system provider’s permit, and well abandonment permit (if applicable) would be required from the County Environmental Health Division.

Prior to submitting any County application or improvement plans for approval associated with the Park, the applicant for each proposed project shall complete a Subsequent Conformity Review questionnaire. The purpose of the questionnaire will be to enable the County to determine whether the proposed project is consistent with this EIR, to examine whether there are project-specific effects that are particular to the project or its site that were not considered in this EIR, and/or whether an event as described in Section 15162 of the State CEQA Guidelines has occurred. The County may require additional information to make such a determination, including, but not limited to, the following:

- ▶ Preliminary Grading Plan (including off-site improvements)
- ▶ Preliminary Geotechnical Report

- ▶ Preliminary Drainage Report
- ▶ Preliminary Water Quality Best Management Practices (BMP) Plan
- ▶ Acoustical Analysis (and associated Traffic and Circulation Studies)
- ▶ Hazards/Past Use Studies (Phase I Environmental Site Assessments and Phase II limited soils investigation, and/or Preliminary Endangerment Assessment with California Department of Toxic Substances Control, as determined by County Environmental Health Services)
- ▶ Mosquito Control Design Features (for waterways, underground water detention structures, water facilities, etc.)
- ▶ Water Quality Related Studies/Details (BMP's, Preliminary Grading Plan, Preliminary Drainage Plan)
- ▶ Utility Will-Serve Requirements Letters (water, sewer, solid waste, reclaimed water, etc.)
- ▶ Senate Bill (SB) 221 Water Supply Assessment Information
- ▶ Hazardous Materials Usage Information
- ▶ Water Supply Well Information (as applicable)
- ▶ Biological and Cultural Resources Study; and
- ▶ Public Safety Assessment

Based on the information provided, the County will determine whether the proposed development entitlement is consistent with this EIR, whether additional environmental compliance is required, and if so, the correct mechanism of such compliance.

### **3.9.2 OTHER AGENCIES USING THE EIR AND CONSULTATION REQUIREMENTS**

This EIR will be used by the County and CEQA responsible agencies to fulfill the requirements of CEQA. It will also be used as an informational document by federal agencies that could have permitting or approval authority for the project and by other state and local agencies, including CEQA trustee agencies that may have an interest in the project. See Chapter 1.0, "Introduction," for detail on the lead, responsible, and trustee agencies for the proposed project.

Consultation with these responsible and trustee agencies as well as Native American interests is ongoing. As described in Chapter 6.0, "Cultural Resources," consultation was initiated with representatives of Native American groups during early planning phases for the project. Because the project area could be of cultural significance to Native Americans, individuals and representatives from local Native American tribes were consulted before any field surveys and ground-disturbing activities were conducted. The United Auburn Indian Community of the Auburn Rancheria, Shingle Springs Band of Miwok Indians, Todd Valley Miwok-Maidu Cultural Foundation, and Rose Enos were all contacted by letter, with requests for information on sacred or sensitive resources within the project area. The Native American Heritage Commission was also contacted concerning the proposed project.



The following is a list of entities that may use this EIR for discretionary or informational purposes:

## **FEDERAL AGENCIES**

- ▶ U.S. Army Corps of Engineers
- ▶ U.S. Fish and Wildlife Service
- ▶ National Marine Fisheries Service

## **STATE AGENCIES**

- ▶ California Air Resources Board
- ▶ California Department of Conservation
- ▶ California Department of Fish and Game, Region 2
- ▶ California Department of Forestry and Fire Protection
- ▶ California Department of Parks and Recreation
- ▶ California Department of Transportation, District 3
- ▶ California Highway Patrol
- ▶ California Resources Agency
- ▶ Central Valley Regional Water Quality Control Board
- ▶ State Water Resources Control Board

## **LOCAL AGENCIES**

- ▶ City of Auburn
- ▶ City of Lincoln
- ▶ Placer County Board of Supervisors
- ▶ Placer County Department of Public Works
- ▶ Placer County Community Resource Development Agency
- ▶ Placer County Environmental Health Division
- ▶ Placer County Air Pollution Control District
- ▶ Placer County Department of Facility Services
- ▶ Placer County Sheriff-Coroner-Marshall
- ▶ Placer County Office of Emergency Services

## 4.0 LAND USE AND AGRICULTURAL RESOURCES

This chapter evaluates the environmental impacts from implementation of the proposed project on existing land uses and agricultural resources. A description of the existing site characteristics and setting is followed by an analysis focused on the relationship between the proposed project and existing plans and policies, and the relationship with proposed on-site and existing adjacent land uses.

### 4.1 ENVIRONMENTAL SETTING

#### 4.1.1 PROJECT AREA (EXISTING LAND USES, AGRICULTURE)

The proposed project is located between north Auburn and the City of Lincoln in Placer County, in the Sierra Nevada foothills approximately 40 miles northeast of Sacramento. The Park includes approximately 1,200 acres of open space lands consisting of Spears Ranch (979 acres) and Didion Ranch (221 acres). The project area is situated along Coon Creek and is south of the Bear River. Garden Bar Road is located to the west; Mt. Vernon and Mt. Pleasant Roads are to the south; and Bell and Hubbard Roads are to the east. The area is undeveloped except for an existing ranch house and several smaller support structures; the project area consists largely of open space comprising natural oak woodlands, with Coon Creek, Deadman Creek, and associated tributaries meandering from the eastern end of the property to the westernmost property boundary.

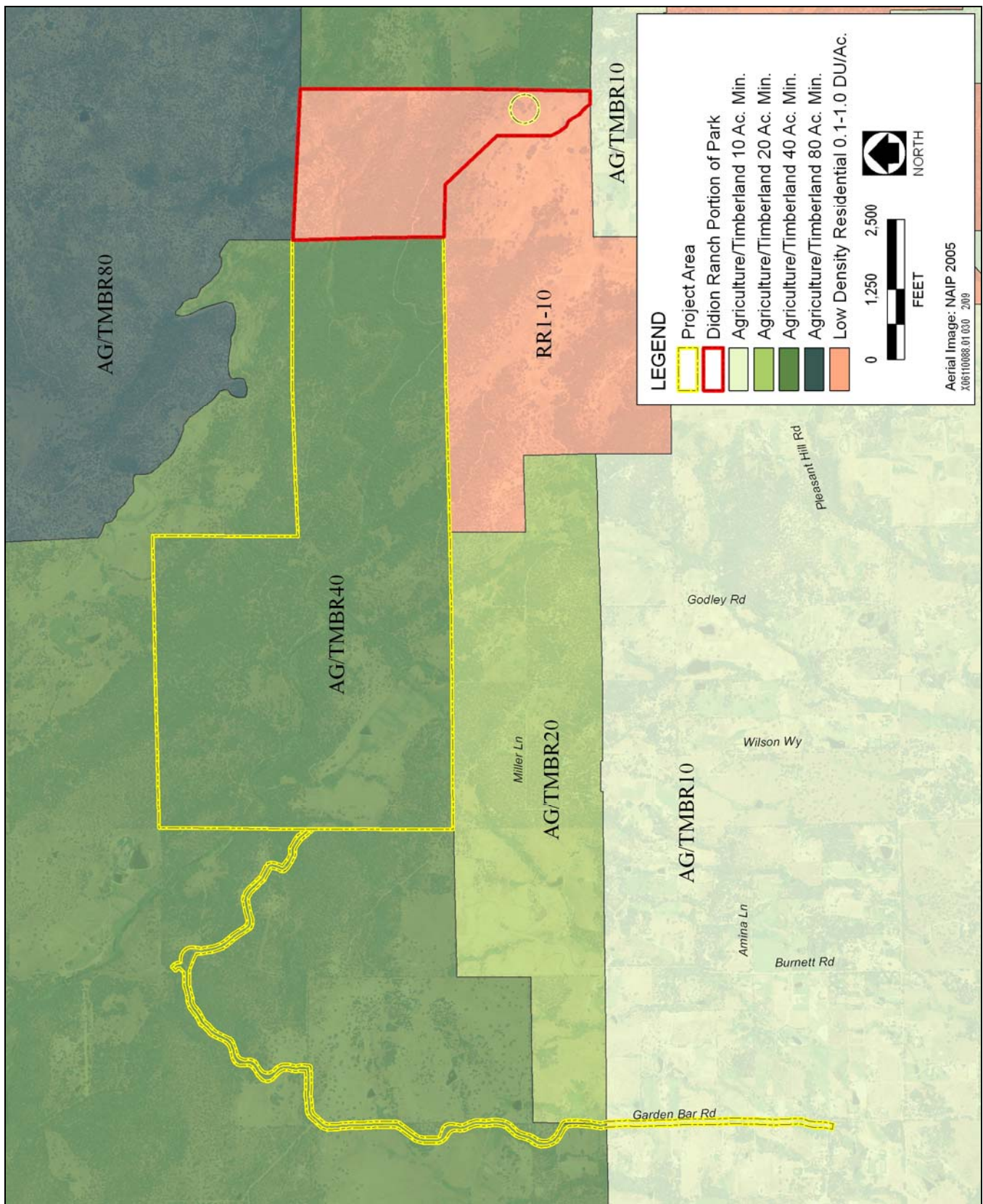
For the past 100 years, the western 979 acres (Spears Ranch) of the Park were used primarily for livestock grazing. The current tenant (i.e., the former owner) has used the property for cattle grazing since 1985. For the past 20 years, the stocking rate has fluctuated between 75 and 100 cows. The former owner has retained grazing rights in a portion of the Park until 2014, at which point the County will take over these rights. Cattle continue to be grazed on portions of the Park, primarily in irrigated pasture areas, and fencing has been placed in areas to manage the grazing activities. The ranch house, support structures, and grazing lands are located in the western portion of the Park. The property is currently served by public and private services and utilities. The eastern portion of the Park is not subject to heavy grazing activity because of uneven and undulating topography and inaccessibility of the area associated with Coon Creek, Deadman Creek, and associated tributaries.

The Didion Ranch portion of the Park, located adjacent to the proposed project area to the east, is currently open to public use and the Spears Ranch portion of the Park (project area) is currently closed to public use.

#### PLACER COUNTY GENERAL PLAN LAND USE DESIGNATIONS

The land use designations for the Spears Ranch portion of the Park in the *Placer County General Plan* (General Plan) (Placer County 1994) are Agriculture, 40-acre minimum lot area and Timberland, 40-acre minimum lot area. These designations are described further below (see Exhibit 4-1).

- **Agriculture (AG) (40-acre minimum).** This designation identifies land used for production of food and fiber, including areas of prime agricultural soils. It also includes other productive and potentially productive lands where commercial agricultural uses can exist without creating conflicts with other land uses, or where potential conflicts can be mitigated. Typical land uses allowed include crop production, orchards and vineyards; grazing, pasture, rangeland, and hobby farms; other resource extraction activities; facilities that directly support agricultural operations, such as processing of agricultural products; and necessary public utility and safety facilities. Allowable residential development in areas designated Agriculture includes one principal dwelling and one secondary dwelling per lot, caretaker/employee housing, and farmworker housing.



Source: California Department of Conservation 2004

## Land Use Designations in the Project Vicinity

## Exhibit 4-1

- **Timberland (T) (40-acre minimum).** This designation is applied to mountainous areas of the county where the primary land uses relate to the growing and harvesting of timber and other forest products, and limited, low-intensity public and commercial recreational activities. Typical land uses allowed include all commercial timber production operations and associated facilities; agricultural operations, where soil and slope conditions permit; mineral and other resource extraction operations; recreational uses such as incidental camping and private, institutional, and commercial campgrounds (but not recreational vehicle parks); and necessary public utility and safety facilities. Allowable residential development in areas designated Timberland includes one principal dwelling and one secondary dwelling per lot and caretaker/employee housing.

## **PLACER COUNTY ZONING**

In the County Zoning Ordinance the Spears Ranch portion of the Park consists of 20 separate parcels all zoned open space (see Exhibit 4-2).

Zoning districts are used to address special needs or characteristics of the areas of the county to which they are applied, such as potential hazards and/or land use conflicts created by aircraft overflight, flooding, unique community character, or visual quality. The zoning district applicable to the Park is open space, which is designated as O. Section 17.14.010 of the County Zoning Ordinance describes the purpose of the open space district as follows:

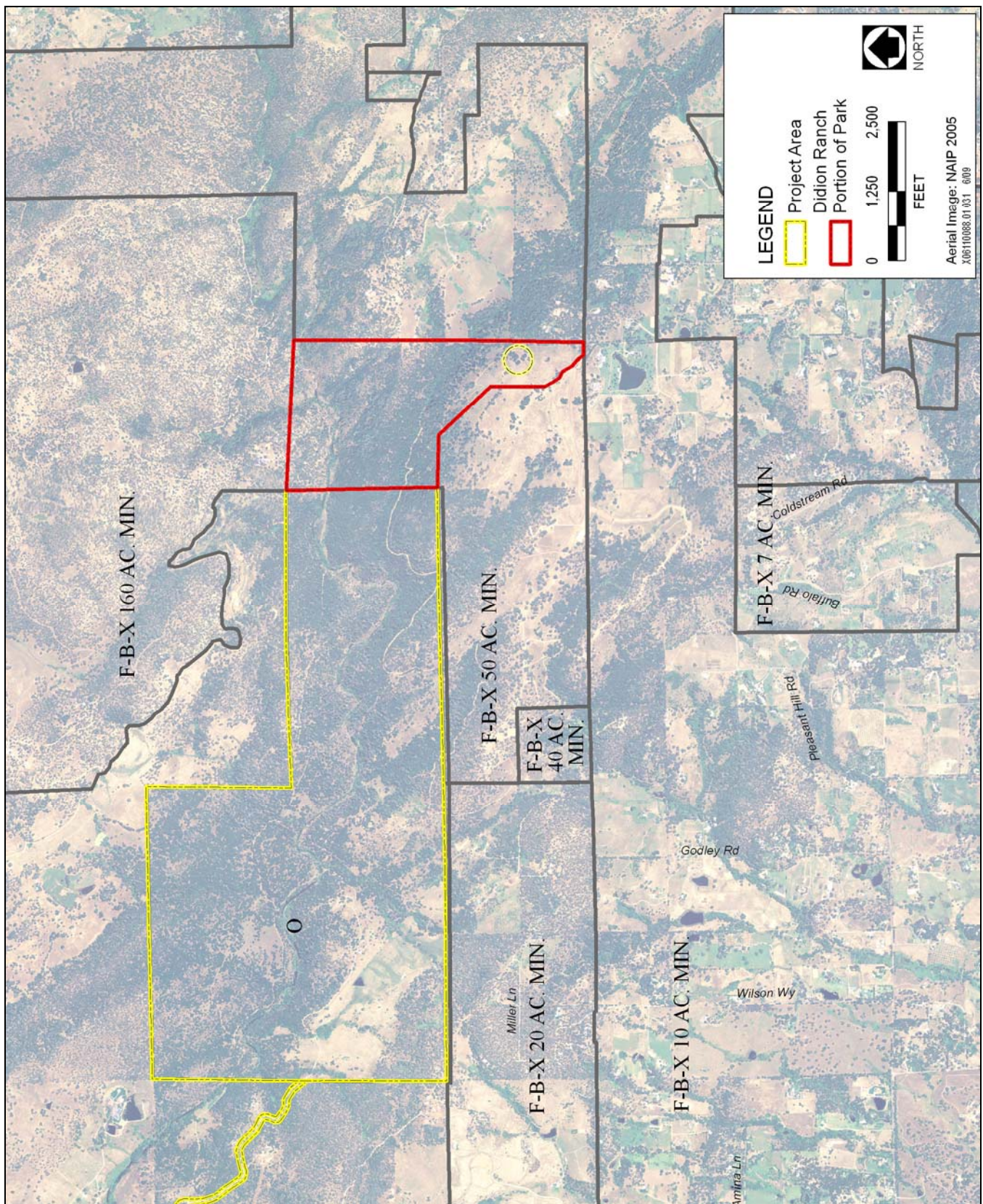
The purpose of the open space district is to protect important open space lands within Placer County by limiting allowable land uses to low intensity agricultural and public recreational uses, with development restricted to accessory structures necessary to support the primary allowed uses, and critical public facilities. Allowable land uses in the open space district include agricultural (including accessory structures), grazing, forestry, equestrian facilities, recreational uses, mining, campgrounds, shooting ranges, and temporary events.

### **4.1.2 ADJACENT LAND USES**

The project area is surrounded by private agricultural lands in the Sierra Nevada foothills. Adjacent land uses include cattle grazing and scattered rural residences. The project area is adjacent to the 221-acre, County-owned Didion Ranch portion of the Park. Approximately 7 miles of trails exist on the Didion Ranch portion of the Park. Both the Didion Ranch and Spears Ranch portions of the Park have been used in the past for grazing. The Didion Ranch portion of the Park is currently used for passive recreation and includes multiple-use trails, a small picnic area, handicapped accessible trail, and parking area. The Didion Ranch portion of the Park is open to the public from sunrise to sunset, year-round. There is parking for approximately 50 cars and 6 equestrian trailers. Access to this portion of the Park is provided via Mears Drive. Other Didion Ranch Park amenities include watering facilities for equestrian use, a double cell restroom facility, a public well, an entry gate, an informational kiosk, 12,000-gallon emergency water storage tank, fire hydrant, security lighting, and two drinking fountains. The Didion Ranch portion of the Park also contains an emergency water supply storage tank, a helistop, and an emergency vehicle bridge crossing over Deadman Canyon Creek. No hunting is currently allowed on the property; however, fishing is allowed according to California Department of Fish and Game regulations.

An existing residence is located approximately 1,600 feet from the northwest corner of the Spears Ranch portion of the Park, and several rural residences are located to the south off Miller Lane and Johnson Drive at a distance ranging from 800 to 1,400 feet from the southwestern project boundary. Additional land uses to the southwest consist of cattle grazing and forested areas lie to the south of the property. North of the project area is wooded forest with agricultural uses and land to the northeast is used for grazing.





Source: Placer County 1994

## Zoning Designations in the Project Vicinity

## Exhibit 4-2

Some of the access to the Spears Ranch portion of the Park would be from Garden Bar Road, a rural two-lane roadway. Garden Bar Road would require phased upgrades to support proposed traffic to the project area. The area surrounding Garden Bar Road is largely rural with scattered residences and agricultural uses in the vicinity. Approximately 50 residences are accessed from Garden Bar Road between Mt. Pleasant Road and the project area, with approximately 10 residences within 500 feet of Garden Bar Road. Garden Bar Road becomes increasingly rural as it approaches the proposed entrance to the Park, and residences are much more widely dispersed in this area.

The General Plan land use designations for lands adjacent to the Park are the same as the project area. They are listed below and described in detail above. The County zoning for the lands adjacent to the Park is Farm with Building Site, which is described below:

- ▶ The land use designations in the General Plan for land adjacent to the project area are Agriculture, 10-, 20-, 40-, and 80-acre minimum lot area; Timberland, 10-, 20-, 40-, and 80-acre minimum lot area; and Rural Residential 1-10-acre minimum lot area (Exhibit 4-1).
- ▶ Land adjacent to the project area is zoned as Farm with Building Site ranging from 10 to 160 acre minimums (Exhibit 4-2). The purpose of the Farm (F) district is to provide areas for commercial agricultural operations that can also accommodate necessary services to support agricultural uses, together with residential land uses at low population densities. Allowable land uses in the Farm district are agriculture, forestry, grazing, mining, community centers, libraries, museums, parks, playgrounds, golf courses, rural recreation, schools, and single-family dwellings. Rural recreational uses require a minor use permit in the F district.

## 4.2 REGULATORY SETTING

### 4.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulations, or laws related to land use or agricultural resources are applicable to the proposed project.

### 4.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

#### **CALIFORNIA IMPORTANT FARMLAND INVENTORY SYSTEM AND FARMLAND MAPPING AND MONITORING PROGRAM**

The California Department of Conservation, Office of Land Conservation, maintains a statewide inventory of farmlands. These lands are mapped by the Division of Land Resource Protection as part of the Farmland Mapping and Monitoring Program (FMMP). The maps are updated every 2 years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance. Farmlands are divided into the following five categories based on their suitability for agriculture:

- ▶ **Prime Farmland**—land that has the best combination of physical and chemical characteristics for crop production. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed.
- ▶ **Farmland of Statewide Importance**—land other than Prime Farmland that has a good combination of physical and chemical characteristics for crop production.
- ▶ **Unique Farmland**—land that does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, but that has been used for the production of specific crops with high economic value.



- ▶ **Farmland of Local Importance**—land that either is currently producing crops or has the capability of production, but that does not meet the criteria of the categories above.
- ▶ **Grazing Land**—land on which the vegetation is suited to the grazing of livestock.

These categories are sometimes referred to as Important Farmland. Other categories used in the FMMP mapping system are “urban and built-up lands,” “lands committed to nonagricultural use,” and “other lands” (land that does not meet the criteria of any of the other categories).

Exhibit 4-3 shows the designated farmland within the project area, according to the latest data available from the FMMP. The majority of the project area is categorized as Farmland of Local Importance, and a smaller portion in the southwest area of the Park is categorized as Farmland of Statewide Importance.

## **WILLIAMSON ACT CONTRACT LAND**

The California Land Conservation Act of 1965, commonly known as the Williamson Act, enables local governments to enter into contracts with private landowners to promote the continued use of the relevant land in agricultural or related open-space use. In return, landowners receive property tax assessments that are based on farming and open-space uses instead of full market value. Local governments receive an annual subvention (subsidy) of forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

The Williamson Act empowers local governments to establish “agricultural preserves” consisting of lands devoted to agricultural uses and other compatible uses. When such preserves are established, the locality may offer owners of included agricultural land the opportunity to enter into annually renewable contracts that restrict the land to agricultural use for at least 10 years (i.e., the contract continues to run for 10 years after the first date upon which the contract is not renewed). In return, the landowner is guaranteed a relatively stable tax rate, based on the value of the land for agricultural/open space use only and unaffected by its development potential.

Exhibit 4-4 shows the existing Williamson Act contracts in the project vicinity. The project area is not currently under Williamson Act contract. Lands to the north of the project area and adjacent to Garden Bar Road are currently under Williamson Act contracts.

## **4.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES**

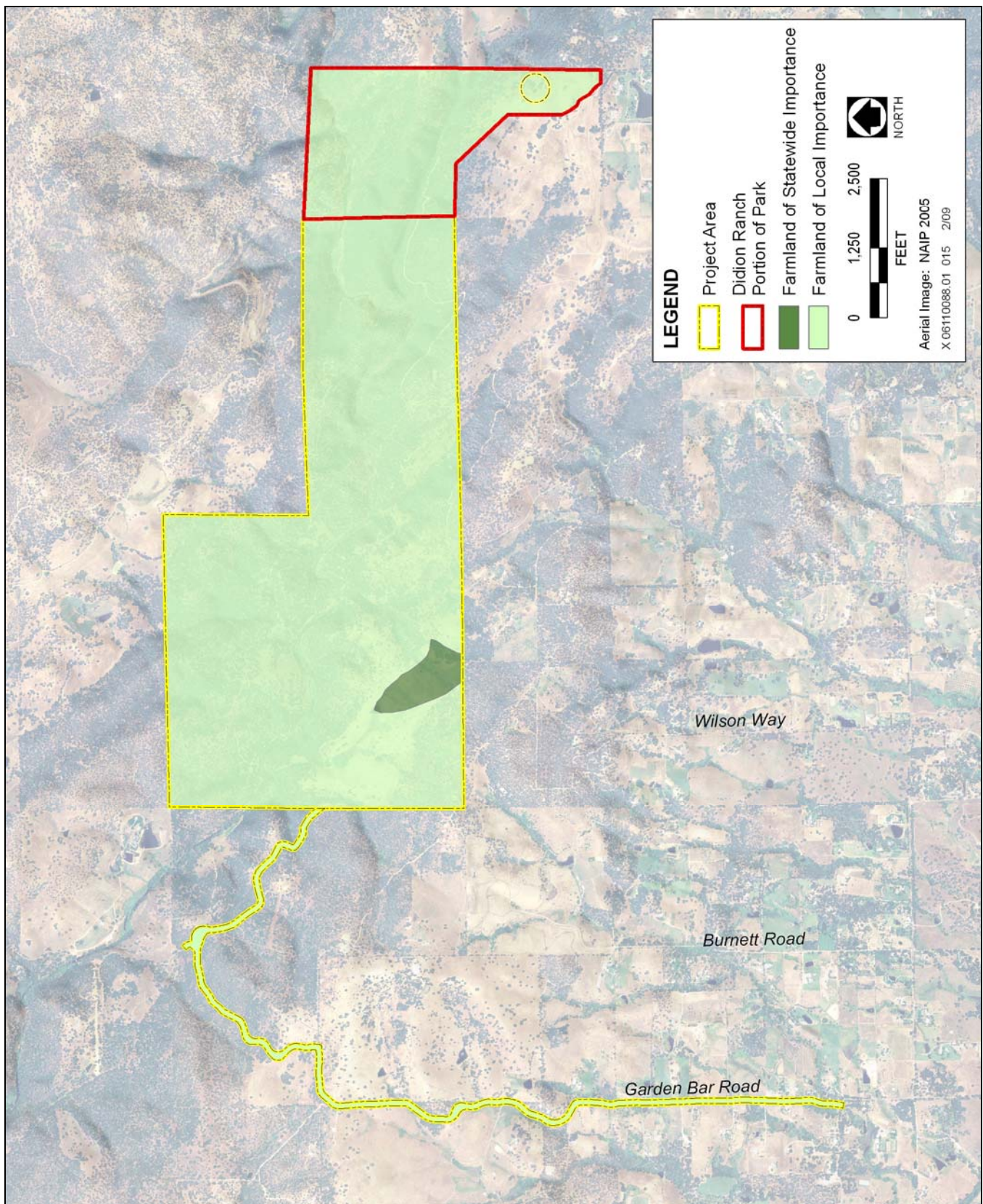
### **PLACER COUNTY GENERAL PLAN**

The General Plan (1994) describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the county. It is based on the assumption that the County will experience continued growth and economic development, because of its desirable climate, physical setting, plentiful resources, and proximity to the Sacramento metropolitan area.

The General Plan’s land use designations for the project area are described in Section 4.1.1 above. The following are the relevant goals and policies identified by the General Plan for land use:

**GOAL 1.G:** To designate land for and promote the development and expansion of public and private recreational facilities to serve the needs of residents and visitors.

- ▶ **Policy 1.G.2.** The County shall strive to have new recreation areas located and designed to encourage and accommodate non-automobile access.
- ▶ **Policy 1.G.3.** The County shall continue to require the development of new recreational facilities as new residential development occurs.

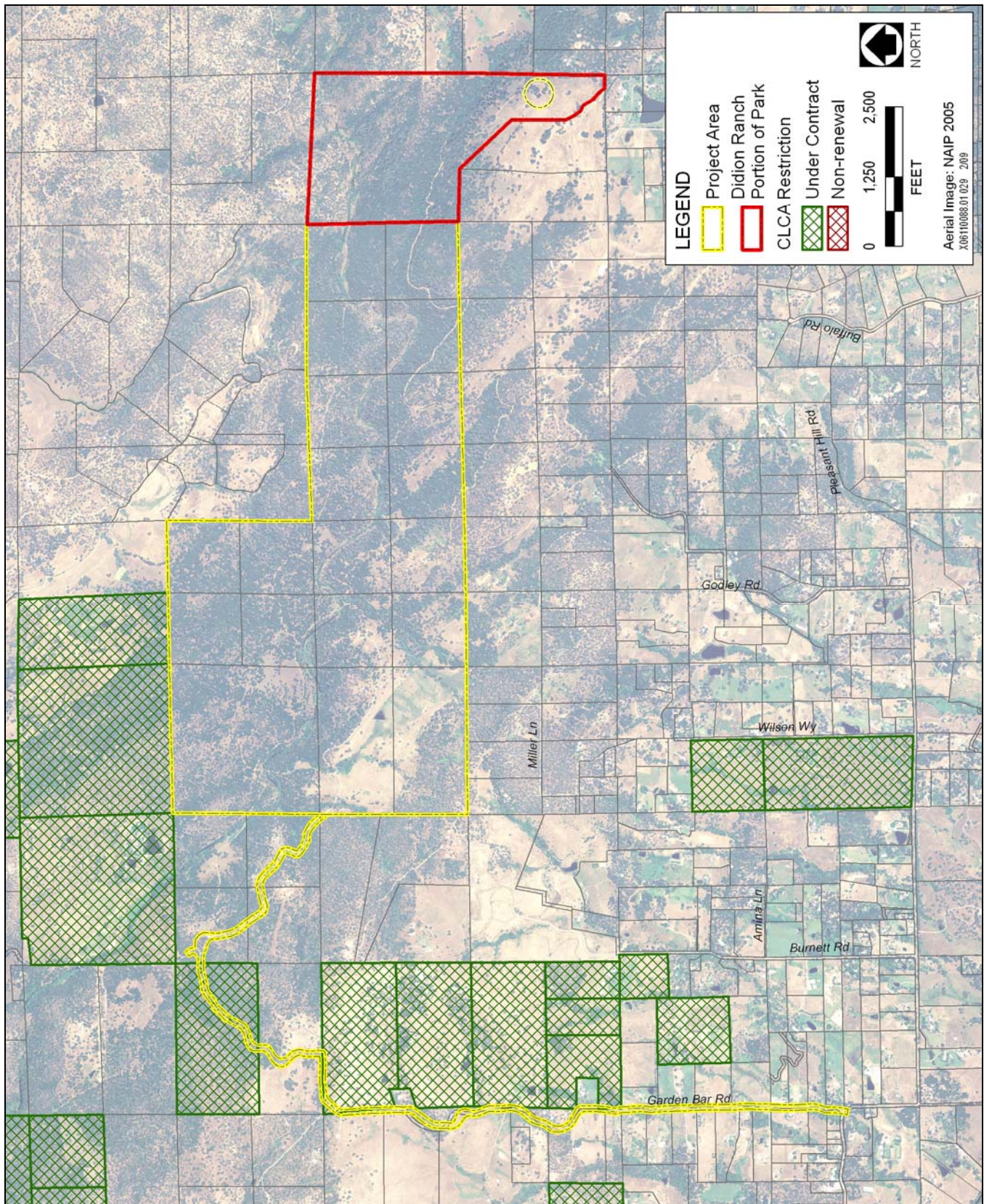


Source: California Department of Conservation 2004

## Farmland Map

## Exhibit 4-3





Source: National Agriculture Imagery Program 2005

## Williamson Act Contract Map

## Exhibit 4-4



The following are the relevant goals and policies identified by the General Plan for agricultural resources:

**GOAL 7.A:** To provide for the long-term conservation and use of agriculturally-designated lands.

- ▶ **Policy 7.A.1.** The County shall protect agriculturally-designated areas from conversion to non-agricultural uses.
- ▶ **Policy 7.A.3.** The County shall encourage continued and, where possible, increased agricultural activities on lands suited to agricultural uses.
- ▶ **Policy 7.A.7.** The County shall maintain agricultural lands in large parcel sizes to retain viable farming units.
- ▶ **Policy 7.A.13.** The County shall encourage multi-seasonal use such as private recreational development, agricultural lands, and timberlands to enhance the economic viability.

**GOAL 7.B:** To minimize existing and future conflicts between agricultural and non-agricultural uses in agriculturally-designated areas.

## **PLACER COUNTY ZONING ORDINANCE**

The County Zoning Ordinance, Chapter 17 of the County Code, was adopted by the County Board of Supervisors in July 1995 (Edition No. 1). The Zoning Ordinance, Ninth Edition, was revised in January 2005. The County Zoning Ordinance, which is consistent with the General Plan, regulates the use of land, buildings, and structures and establishes minimum regulations and standards for the development of land within the county. Zoning designations for the project area is described in Section 4.1.1 above.

## **4.3 IMPACTS**

### **4.3.1 ANALYSIS METHODOLOGY**

The focus of this analysis is on land use impacts that would result from project implementation. Evaluation of potential land use impacts of the proposed project was based on a review of existing planning documents pertaining to the project area (the General Plan, the County Zoning Ordinance); and field review of the project area and surroundings.

Specific impacts and project consistency issues associated with biological resources; cultural resources; visual resources; transportation and circulation; air quality; noise; soils, geology, and seismicity; hydrology and water quality; public services and utilities; and recreation are addressed in the respective chapters of this EIR as appropriate.

### **4.3.2 THRESHOLDS OF SIGNIFICANCE**

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on land use if it would:

- ▶ convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use;
- ▶ conflict with existing zoning for agricultural use, or a Williamson Act contract;
- ▶ involve other changes in the existing environment that, because of their location or nature, could result in the conversion of Farmland to nonagricultural use;

- ▶ physically divide an established community; or
- ▶ conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project.

The proposed project would not conflict with an applicable environmental plan or policy adopted by an agency with jurisdiction over the project. The area is undeveloped except for an existing ranch house and several smaller support structures and the surrounding vicinity consists of scattered rural residences and agricultural grazing lands; therefore, the project would not divide an established community. Consistency with habitat conservation plans is discussed in Chapter 12.0, “Biological Resources.” For these reasons, these topics will not be discussed further.

### 4.3.3 IMPACT ANALYSIS

**IMPACT 4-1**      **Land Use and Agricultural Resources—Adverse Effect on Agricultural or Timber Resource Operations or Conversion of Important Farmland to Nonagricultural Uses.** *The proposed project would increase use of the project area by the public where grazing activities currently take place, and the project area is designated as Farmland of Statewide Importance and Farmland of Local Importance. Grazing would continue on the property and is included as a component of the County's vegetation, fuels, and range management plan for the Park. Therefore, the property's agricultural use would be sustained as part of the project.*

**Significance**      *Less than Significant*

**Mitigation Proposed**      *None Warranted*

**Residual Significance**      *Less than Significant*

Land use in the Spears Ranch portion of the Park is designated by the General Plan as Agriculture, 20-acre minimum lot area, and Timberland, 20-acre minimum lot area, and is zoned as open space. The project area is also designated as Farmland of Local Importance and Farmland of Statewide Importance (Exhibit 4-1). Currently, grazing takes place on the property and on adjacent properties.

For the past 100 years, the western 979-acre (Spears Ranch) portion of the Park was used for livestock grazing. The stocking rate has fluctuated between 75 and 100 cows over the past 20 years. The former owner has retained grazing rights in the project area until 2014, at which point the County will take over these rights. The County also intends to continue managed grazing as part of its vegetation, fuels, and range management plan for the Park (Placer County 2007). This plan recommends grazing up to 75 cows year round for fire fuel reduction purposes, which is similar to the stocking rate that has been used historically for the project area.

Public use of the project area would consist of outdoor recreation, amenities including hiking, biking, and equestrian trails, and other recreational facilities. Proposed major recreational facilities and structures would be located in a previously disturbed area (i.e., the facility development zone), where several structures are currently located and the land has been heavily grazed in the past (See Exhibit 3-3 in Chapter 3.0, “Project Description.”). Trails would be located in areas used previously for grazing as well as throughout in more natural areas, and would utilize newly constructed trails as well as existing roadways. Minor facilities such as bridges, viewing platforms, picnic pavilions, benches, and interpretive signage would be placed throughout the Park to accommodate use. The Didion Ranch portion of the Park is developed and is currently open to the public.

Expansion of the existing parking area and relocating the adjacent helistop within this part of the Park would not introduce any new land uses.

Restoring farmland to non-agricultural uses, such as a regional park, is consistent with the property's original (or natural) condition. In addition, long-term natural functions and values of habitat would be maintained or improved particularly in the areas where restoration would take place. The project allows restoration actions including fish passage amenities vegetation enhancement and includes protective measures to direct visitors away from sensitive resources.

Native riparian habitat has been reduced due to past land uses on the project area. Restoring riparian habitat along Coon Creek and Deadman Creek.

Changes in land uses pursuant to the proposed zoning code could also indirectly affect adjacent agricultural operations, including agricultural uses on Important Farmland and lands under Williamson Act contracts, if proposed facility development and resource management efforts conflict with or interrupt surrounding agricultural-based land uses.

However, the proposed project would include several agricultural components, such as continuation of current agricultural activities, including grazing; farm management practices (e.g., maintenance of fences, potential expansion of irrigated pastureland); agricultural research projects conducted by qualified institutions; agricultural education programs; and potential leases for grazing and/or agricultural uses. Perimeter fencing around the property would be repaired in kind or replaced with barbless wire as needed. Cross fencing and exclusionary fencing would be constructed in riparian and other sensitive areas throughout the Park.

Constructing recreational facilities in the project area would not result in or encourage the conversion of any surrounding farmland to nonagricultural use. Outdoor recreation is noted as being compatible with agriculture in Williamson Act documentation and in the Land Evaluation Site Assessment (LESA) model, which is a model that evaluates and rates potential impacts to agricultural lands. In addition, the project area has not previously been used for timber resource operations and is not expected to be used for this purpose in the future. Therefore, there would be no change in timber resource operations as a result of the proposed project.

Because the property would continue to be used for livestock grazing, and outdoor recreation uses are considered compatible with agricultural uses, this impact would be less than significant.

<b>IMPACT</b> <b>4-2</b>	<b>Land Use and Agricultural Resources—Alteration of Land Use and Potential Conflicts with Existing or Future Land Uses Adjacent to the Project Area.</b> <i>Use of the project area for open space and grazing would be consistent with surrounding land uses; however, outdoor recreation would be a new land use for the project area. The proposed project would add trails and recreational facilities and would increase the use of the project area by the public. Although this change in use would be different from surrounding uses, project facilities are included that would ensure compatibility with surrounding land uses adjacent to the project area.</i>
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<b>Significance</b>	<i>Less than Significant</i>
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<b>Mitigation Proposed</b>	<i>None Warranted</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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The surrounding land uses are primarily rural residential and cattle grazing. An existing residence is located approximately 1,600 feet from the northwest corner of the property, and several rural residences are located between 800 to 1,400 feet from the southwestern project boundary. Additional land uses to the southwest consist of cattle grazing lands. Land uses to the south consist of forested areas and agricultural uses. North of the project area uses include wooded forest with agricultural and grazing uses to the northeast.

Residences are located primarily in the vicinity of Garden Bar Road. Approximately 50 residences are accessed from Garden Bar Road between Mt. Pleasant Road and the project area, with approximately 10 residences within 500 feet of Garden Bar Road. Garden Bar Road becomes increasingly rural as it approaches the proposed entrance to the Spears Ranch portion of the Park, and residences become much more widely dispersed in this area. Similarly, many of the existing grazing areas are associated with the residences in the area, and become increasingly dispersed approaching the project area.

The project vicinity is largely rural in nature, surrounded by agricultural lands consisting of various habitats such as grazing lands, oak woodlands, grassland, chaparral, wetlands, and riparian habitat associated with Coon and Deadman Creeks. The Didion Ranch portion of the Park is also located in the project vicinity and is currently being used by the public for passive recreation.

Land uses adjacent to the project area are designated by the General Plan as Agriculture, 20-acre minimum lot area, and Timberland, 20-acre minimum lot area, and zoned as Farm with Building Site (F-B-X 20-acre minimum, F-B-X 40, F-B-X 50, and F-B-X 160) by the County Zoning Ordinance. Compatible land uses for these zoning and land use and designations are discussed above in Section 4.1.2.

The project area would support outdoor recreation uses, which is noted as compatible with land under Williamson Act contract and in the LESA model. The proposed project would also include habitat restoration and continuation of agricultural uses within the Park, and the Didion Ranch portion of the Park is already open for passive recreation. Therefore, the proposed project would be consistent with existing and future adjacent land uses and this would be a less-than-significant impact.

<b>IMPACT</b> 4-3	<b>Land Use and Agricultural Resources—Potential for Conflicts with Land Use or Agricultural Resource Plans, Policies, or Regulations.</b> <i>Construction and operation of outdoor recreational facilities in the project area is not included as a land use under the General Plan's Agriculture land use designation. However, the County determines allowable land uses at a parcel-level according to the zoning code, and outdoor recreational uses are allowed as specified in the open space zoning district. According to the Placer County zoning code, the project would be allowed in the project area with approval of a Conditional Use Permit. Further, the use of the property as a regional park is considered compatible with agricultural uses, would maintain the natural state of the area, and grazing activities would continue to occur after the project is implemented. Therefore, the land uses proposed by the project are consistent with existing plans, policies, and regulations. In addition, the project area is not enrolled in a Williamson Act contract.</i>
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<b>Significance</b>	<i>Less than Significant</i>
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<b>Mitigation Proposed</b>	<i>None Warranted</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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Zoning for the Spears Ranch portion of the Park is designated open space. The open space designation allows for agricultural operations, grazing, and outdoor recreational facilities. Lands zoned open space allows for outdoor

recreational uses, campgrounds, and temporary events with the approval of a Conditional Use Permit. The General Plan designates the land use in the Spears Ranch portion of the Park as Agriculture, 40-acre minimum lot area; and Timberland, 40-acre minimum lot area. The Timberland land use designation allows forestry uses, while also allowing open space, residential, and recreational land uses in these same areas. Although the Agricultural land use designation does not specifically state that recreational uses are allowed, it lists a broad range of typical uses that are allowed within this land designation area, which includes agriculture related uses, such as commercial agriculture, grazing, pasture, rangeland, and hobby farms; other resource extraction activities; and facilities that directly support agricultural operations. The General Plan Land Use section Part 1 refers to the County's zoning maps (Chapter 30 of the Placer County Code) for more detailed, parcel-specific allowable land uses. The proposed use is consistent with the County's zoning of the Spears Ranch portion of the Park, and with the acquisition of a Conditional Use Permit, the project would comply with the County's planning documents. The Didion Ranch portion of the Park is already developed and is open to the public. Expansion of the existing parking area and relocating the adjacent helistop within this part of the Park would not introduce any new land uses.

Major structures and amenities to be built or renovated would be limited to the facility development zone of the southwest portion of the property and include parking areas, permanent restrooms, a nature/cultural education center, bunkhouses, caretaker facility, and maintenance yard. Minor structures and amenities proposed throughout the property include hiking trails, which would include newly constructed trails, as well as existing maintenance roadways, associated foot bridges, an emergency vehicle bridge, equestrian amenities, picnic areas, permanent restroom facilities, fire suppression facilities, a disc golf course, designated fishing areas, and interpretive signage. Options being considered for parking include a surfaced parking area to accommodate anticipated uses and a gravel equestrian parking area, a gravel overflow parking area, and a parking area to accommodate the nature center. In addition, the existing parking area on the Didion Ranch portion of the Park would be expanded.

More intensive land uses, including the parking areas, maintenance facilities, caretaker residence, nature/cultural education center, bunkhouses, and restrooms with septic systems, are proposed to be limited to the southwest portion of the property, within the existing facility development zone (See Exhibit 3-4 in Chapter 3.0, "Project Description."). Less intensive land uses, including various benches and picnic tables, fitness/ropes courses, and bridge crossings, would be dispersed throughout the project area relative to the proposed trail network. A disc golf course would be designed to coincide with areas where vegetation management is desirable such as shaded fuel breaks and other non-sensitive upland areas.

The nearest residences are 1,600 feet to the northwest and over 800 feet to the south. With the more intensive proposed recreation uses limited to the portion of the property that already have existing buildings, the distance to the nearest homes from major structures would be increased to at least 1,500 feet. The proposed project also includes components such as, the continuation of grazing activities, fencing, and signage. Perimeter fencing around the property and access road would be constructed of barbless or woven wire to contain cattle. Signage would alert Park visitors to the Park boundaries. Park patrols would be implemented as conditions warrant. Considering the distance to the closest rural homes, fencing, trail placement, property boundary signage, and Park patrols, significant land use conflicts with nearby residences would not be expected.

The use of the Spears Ranch portion of the Park for preservation of open space would be consistent with the General Plan and County Zoning Ordinance. However, a Conditional Use Permit would be required to ensure the project would be compatible with the surrounding privately-owned properties. Approval of a Conditional Use Permit is required for certain land uses that are generally consistent with the zone's purposes but that could create compatibility issues for adjoining properties, the surrounding area, and their populations if not designed to avoid effects on surrounding land uses. The purposes of a Conditional Use Permit are to allow County Planning Department staff and the planning commission to evaluate one or more proposed uses to determine whether land use conflicts may occur, to provide members of the public with an opportunity to review the proposed project and express their concerns in a public hearing, to work with the project applicant to adjust the project through

conditions of approval to solve any potential conflicts that are identified, or to disapprove a project if identified conflicts cannot be acceptably corrected.

The project has been designed to be consistent with residences and agricultural activities in the surrounding area and includes components that would ensure compatibility with surrounding land uses and would be consistent with planning documents, policies, and regulations. In addition, the proposed project would be required to obtain a Conditional Use Permit. This impact would be less than significant.

<b>IMPACT</b> 4-4	<b>Land Use and Agricultural Resources—Roadway Improvements on Garden Bar Road and Potential Conflicts with Existing or Future Land Uses Adjacent to the Project Area.</b> <i>Garden Bar Road would be improved to meet demands of increased traffic related to Park use. Roadway improvements would include widening in certain areas that could impact existing properties, trees, environmentally sensitive areas, and utility poles located along Garden Bar Road. However, design features are included in the project design that would minimize impacts on properties, and other sensitive areas. Road widening would not result in a change in existing land uses adjacent to Garden Bar Road and the impacts would be primarily temporary during construction.</i>
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<b>Significance</b>	<i>Less than Significant</i>
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<b>Mitigation Proposed</b>	<i>None Warranted</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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Approximately 50 residences are accessed from Garden Bar Road between Mt. Pleasant Road and the project area, with approximately 10 residences within 500 feet of Garden Bar Road. Garden Bar Road becomes increasingly rural as it approaches the proposed Spears Ranch entrance, and residences become much more widely dispersed. Similarly, many of the existing grazing areas are associated with the residences in the area, and become increasingly dispersed approaching the project area. The use of the proposed Park is expected to generate approximately 128 vehicles per day during weekdays and 230 vehicles per day on weekends. It should be noted that traffic volume data from the Mears Drive entrance shows that traffic associated with the use of the Park peaks during mid-day hours outside of typical morning and evening commute hour peaks. Peak traffic trends would likely be similar for the Garden Bar entrance.

To meet the demands of increased traffic proposed for Phases 2 and 3 of the proposed project, upgrades would be required on Garden Bar Road. Roadway improvements would take into consideration right-of way availability, trees, environmentally sensitive areas, and utility poles. Roadway widening impacts would potentially require fill of wetlands and removal of a significant number of trees along the roadway (please refer to Section 12.0, “Biological Resources,” for a discussion of these wetland and tree removal impacts). Roadway widening would potentially impact as much as 5 acres of land that is outside of the existing Garden Bar Road right-of-way to accommodate improvements.

Planned improvements to Garden Bar Road are proposed in 3 phases. In Phase 1, the access road between Garden Bar Road and the Park would be fenced, cattle guards would be installed, and an improved gated connector between the access road and Garden Bar Road would be installed prior to allowance of classroom sized groups on site by reservation. Daily public automobile access would not be allowed into the Garden Bar Road entrance in Phase 1; County maintenance access and potential classroom sized groups with managed bus and automobile travel to the Park would be allowed via appointment. All vehicles entering and leaving the site during Phase 1 would be subject to opening and locking the access gate behind them. The improvements in Phases 2 are intended to provide a minimum 18-foot roadway width, where possible, and improve designated vertical curves and

signage along portions of Garden Bar Road. Public automobile, trucks without trailers, and bus access would be allowed into the Garden Bar Road entrance with Phase 2 improvements; however, horse trailer access would not be allowed. For Phase 3 of the project, Garden Bar Road would be widened to 20 feet, where possible, and parking that could accommodate horse trailers would be constructed. In areas along Garden Bar Road and the access road from Garden Bar Road to the Park entrance where the County determines that status trees, significant rock outcroppings, and other valuable natural features within the proposed widening corridor should be preserved or where adequate road right-of-way does not currently exist and is not obtainable through market value based willing seller negotiations, alternatives such as turnouts, striping, and/or signage may be considered and approved in lieu of full width widening for those discreet areas. Horse-trailer access to the Garden Bar Road entrance would be allowed with the implementation of Phase 3. Ultimately, in Phase 3, horizontal curve radii would be designed to 35 mph and 25 mph standards. While recognizing that the 25-mph design does not meet the County's requirements for a rural secondary road, the safety study notes:

Due to the nature of the existing roadway the standard for a rural secondary roadway is not considered appropriate for this setting and would result in unnecessary widening of the existing road and change in character of the roadway given the existing and future use levels. The County Fire Department's requirement is an 18 ft wide all-weather surface and is considered appropriate for Phase 2.

Existing roadside ditches would be reconstructed where the road would be widened; however, no existing structures adjacent to Garden Bar Road would be affected. Road widening would result in a change in land uses of approximately 5 acres of land adjacent to Garden Bar Road. However, the County would work with existing land owners to negotiate the purchase of additional right-of-way from willing sellers as needed for the proposed improvements. This would be a less-than-significant impact.

## **4.4 MITIGATION MEASURES**

No mitigation measures are necessary.



## **5.0 SOILS, GEOLOGY, AND SEISMICITY**

This chapter summarizes existing geologic conditions in the project area, describes applicable regulations, and evaluates project-related impacts associated with on-site geology, soils, seismic hazards, and slope stability. Mitigation measures are recommended as necessary to reduce significant geologic impacts. As described in Chapter 1.0, “Introduction,” the proposed project would not result in the loss of any known mineral resources, nor would it impede or interfere with mineral extraction operations, and the project area is not delineated as a locally important recovery site. Therefore, implementation of the proposed project would have no effect on mineral resources, and this topic will not be discussed further in this EIR.

### **5.1 ENVIRONMENTAL SETTING**

#### **5.1.1 PHYSIOGRAPHIC SETTING**

The project area is located along the western slope of the Sierra Nevada Geomorphic Province. The Sierra Nevada Geomorphic Province is a tilted fault block nearly 400 miles long. Its east face is a high, rugged multiple scarp, in contrast with the gentle western slope, which disappears under sediments of the Great Valley. Deep river canyons are cut into the western slope. Their upper courses, especially in massive granites of the higher Sierra Nevada, are modified by glacial sculpturing, forming such scenic features as the Yosemite Valley. The high crest culminates in Mount Whitney, with an elevation of 14,495 feet above sea level near the eastern scarp. The metamorphic bedrock contains gold-bearing veins in the northwest trending Mother Lode. The northern Sierra Nevada boundary is marked where bedrock disappears under the Cenozoic volcanic cover of the Cascade Range (California Geological Survey 2002).

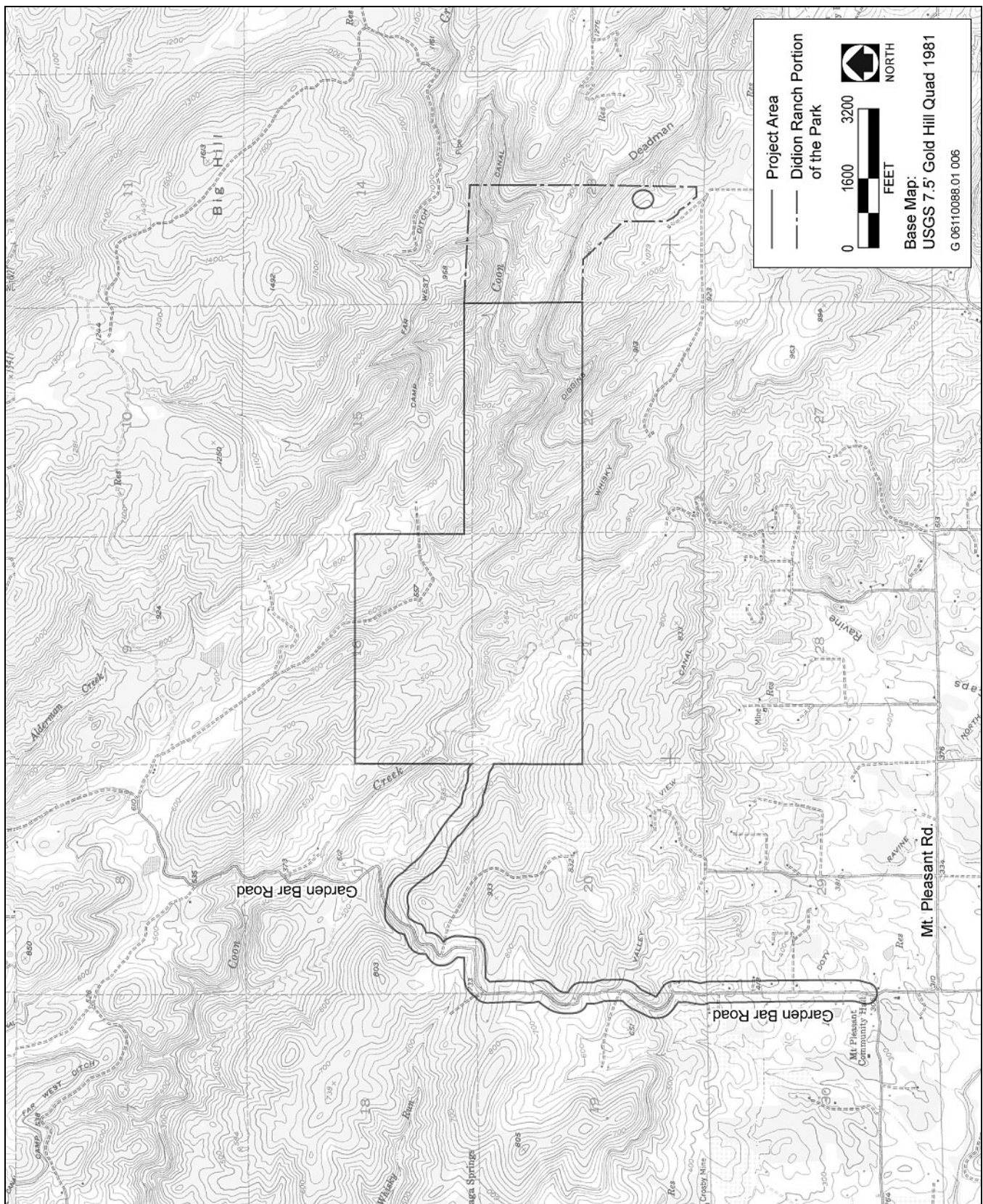
The western slope of the Sierra Nevada is underlain by a series of metamorphic rock assemblages that trend north-northwest to south-southeast between the Mesozoic granitics of the Sierra Nevada batholith on the east and the sediment-filled Sacramento Valley to the west. These metamorphic rocks were developed by convergent plate tectonics between the early Paleozoic era and the Late Jurassic period (400–120 million years ago) and consist of three northerly trending units bounded by faults and classified on the basis of age and lithology: the Eastern, Central, and Western metamorphic terranes.

#### **5.1.2 LOCAL GEOLOGY**

The proposed project is located along an approximate 3.5-mile extent of Coon Creek and found on the U.S. Geological Survey (USGS) Gold Hill 7.5-minute quadrangle. The project area is located less than 3 miles northwest of the City of Auburn and approximately 6 miles southeast of Camp Far West Reservoir. The project area ranges from less than 400 feet above sea level in the western portion (along Coon Creek) to more than 1,200 feet above sea level at the eastern project boundary. Gradients in the project area are highest in the eastern portions along Coon Creek, Whiskey Diggins Canal, and Deadman Creek and lowest in the western portions (Exhibit 5-1). Gradients of the canyon straddling Coon Creek reach 50% at specific segments. However, the majority of gradients on the project area do not exceed 20%.

#### **5.1.3 RECREATIONAL GEOLOGIC FEATURES**

Recreational geologic resources typically include volcanoes, surface hydrothermal features, or surface expressions of geologic features unique enough to generate recreational interest in the general public (e.g., natural bridges, caves, features associated with glaciation, and geomorphic features such as waterfalls, cliffs, canyons, and badlands). Based on a review of the Natural Resources Conservation Service (NRCS) soil survey for the project area, the southeastern-most portion of the project area contains rock outcroppings. These rock outcroppings could be considered a recreational geologic resource for the project area.



Source: Adapted by EDAW 2009

## Project Area Topography

## Exhibit 5-1

## 5.1.4 SOIL RESOURCES

Maps provided by NRCS were reviewed to identify the distribution of soil types in the project area. Exhibit 5-2 provides a detailed map of the surficial soils in the project area. The physical and chemical characteristics of each soil type identified in the project area are presented below.

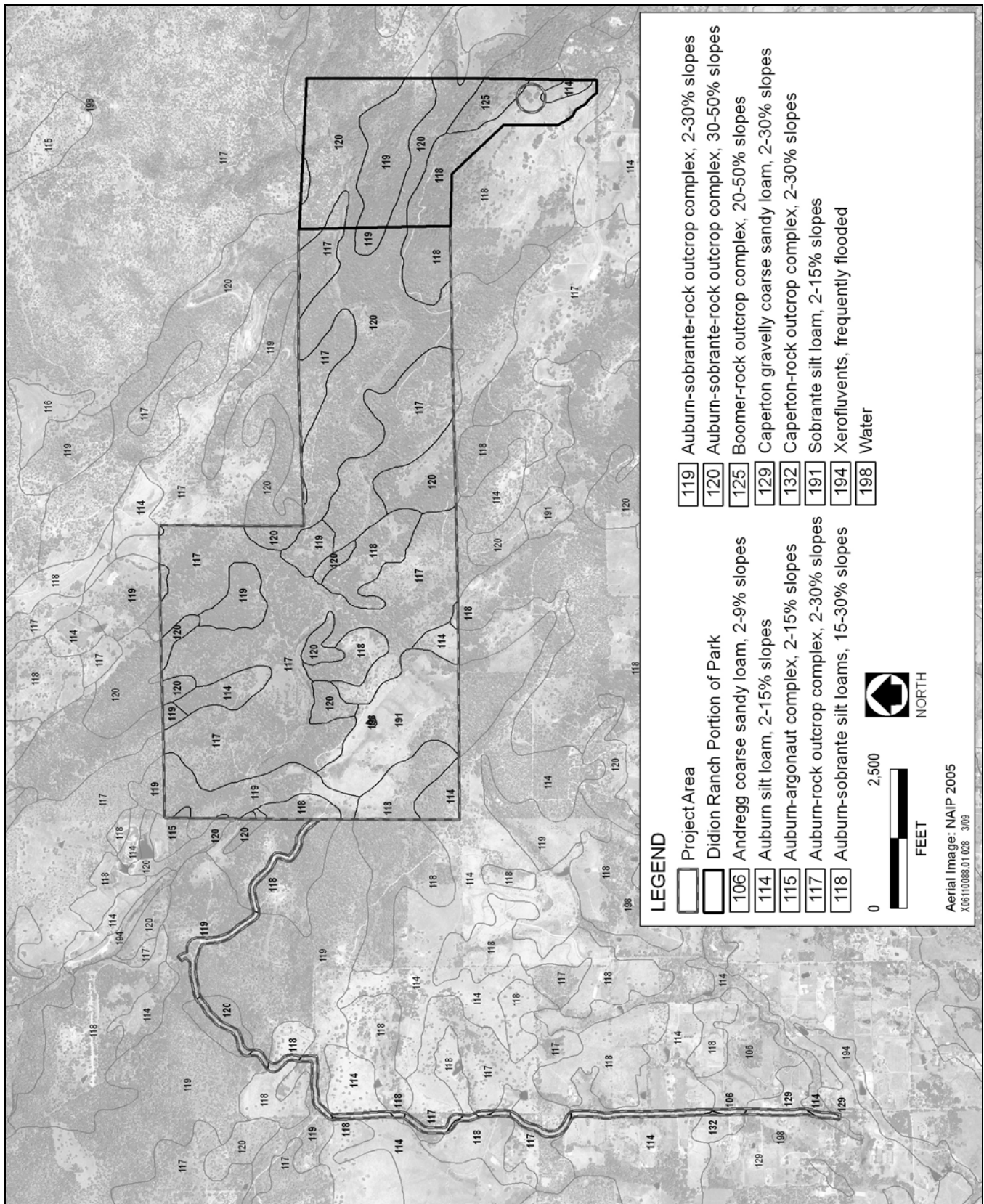
**114 Auburn silt loam, 2–15% slopes**—This soil is shallow and undulating to rolling. It is well drained and underlain by vertically tilted metamorphic rock. The soil forms in residuum on foothills. Typically, the surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil. The erosion hazard for this soil is slight to moderate. This soil is used mainly for irrigated pasture and rangeland because of its shallowness. Septic tank absorption fields may not function properly because the depth to rock is generally less than 28 inches.

**115 Auburn-argonaut complex, 2–15% slopes**—These soils are undulating to rolling and located on broad slopes, in swales, and on concave foot slopes of metamorphic rock foothills. The Auburn soil is shallow and well drained and forms in residuum from vertically tilted basic schist and slate. This soil's surface layer is typically strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with basic schist at a depth of 20 inches. The soil erosion hazard for Auburn soil is slight to moderate. The Argonaut soil is moderately deep and well drained and forms in residuum from metabasic rock. Typically, this soil's surface layer is strong brown loam and yellowish-red silt loam about 9 inches thick over yellowish-red clay loam with weathered basic schist at a depth of 25 inches. The soil erosion hazard for Argonaut soil is slight to moderate. Most of these soils are used for annual grassland and some irrigated pasture.

**117 Auburn-rock outcrop, 2–30% slopes**—These soils are undulating to hilly and rock outcrops are found on rocky side slopes of metamorphic rock hills. Typically, the Auburn soil surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with weather basic schist at a depth of 20 inches. Auburn soil is well drained and forms in residuum from vertically tilted metabasic bedrock. The erosion hazard for Auburn soil is slight to high. Rock outcrops consist of hard metamorphic rock that can reach 1–2 feet in height and cover up to 100 square feet. Surface runoff for rock outcrops is very rapid and there is no erosion hazard. Most of this soil is used for annual rangeland.

**118 Auburn–Sobrante silt loams, 15–30% slopes**—These hilly soils form on metamorphic rock foothills. The Auburn soil is shallow and well drained and forms in residuum from vertically tilted metabasic outcrop. Typically, the Auburn surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with weathered basic schist at a depth of 20 inches. The erosion hazard for Auburn soil is moderate to high. The Sobrante soil is moderately deep and well drained and forms in residuum from metabasic rock. Typically, the Sobrante soil surface layer is yellowish-red silt loam about 7 inches thick over yellowish-red silt and heavy loam subsoil with weathered basic schist at a depth of 33 inches. The erosion hazard for Sobrante soil is slight to high. This soil is used mostly for deciduous orchards and irrigated pasture.

**119 Auburn–Sobrante–rock outcrop complex, 2–30% slopes**—These undulating to hilly soils form on rock side slopes of metamorphic rock foothills. The Auburn soil is shallow and well drained and forms in residuum from vertically tilted metabasic bedrock. Typically, the Auburn soil surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with weathered basic schist at a depth of 20 inches. The erosion hazard for Auburn soil is slight to high. The Sobrante soil is moderately deep and well drained and forms in residuum from metabasic rock. Typically, the Sobrante soil surface layer is yellowish-red silt loam about 7 inches thick over yellowish-red silt and heavy loam subsoil with weathered basic schist at a depth of 33 inches. The erosion hazard for Sobrante soil is slight to high. Rock outcrop consists of hard metamorphic rock that can reach 1 to 2 feet in height and cover up to 500 square feet. Surface runoff for rock outcrop is very rapid and there is no erosion hazard. These soils are mostly used for deciduous orchards and irrigated pasture.



Source: Soil Conservation Service 1977

## Soil Types in the Project Area

## Exhibit 5-2

**120 Auburn–Sobrante–rock outcrop complex, 30–50% slopes**—These steep soils form on rocky canyon sides of metamorphic rock foothills. The Auburn soil is shallow and well drained and forms in residuum from vertically tilted metabasic bedrock. Typically, the Auburn soil surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with weathered basic schist at a depth of 20 inches. The erosion hazard for Auburn is slight to high. The Sobrante soil is moderately deep and well drained and forms in residuum from metabasic rock. Typically, the Sobrante soil surface layer is yellowish red silt loam about 7 inches thick over yellowish-red silt and heavy loam subsoil with weathered basic schist at a depth of 33 inches. The erosion hazard for Sobrante is slight to high. Rock outcrops consist of hard metamorphic rock that can reach 1–2 feet in height and cover up to 500 square feet. Surface runoff for rock outcrop is very rapid and there is no erosion hazard. These soils are mostly used for annual rangeland and watershed.

**125 Boomer–rock outcrop, 30–50% slopes**—This steep soil and rock outcrop are found on rocky side slopes of mountainous uplands. Typically, the Boomer soil surface layer is brown and yellowish-red gravelly loam about 10 inches thick over reddish-yellow gravelly clay loam subsoil with weather basic schist at a depth of 58 inches. Boomer soil is well drained and deep over weathered metabasic rock and forms in the residuum from amphibolite schist or meta-andesite. The erosion hazard for Boomer soil is high. Rock outcrops consist of areas of scattered hard metamorphic rock that can reach 2–5 feet in height and cover up to 500 square feet. Surface runoff for rock outcrops is very rapid and there is no erosion hazard. Most of this soil is used for wood crops.

**191 Sobrante silt loam, 2–15% slopes**—This soil is moderately deep, undulating to rolling, and well drained. It is underlain by weathered metabasic rock and forms in residuum on foothills. Typically, the surface layer is yellowish-red silt loam about 7 inches thick over yellowish-red silt loam subsoil with highly weathered basic schist at a depth of 33 inches. The erosion hazard for this soil is slight to moderate. This soil is used mostly for deciduous orchards and irrigated pasture.

## **SHRINK-SWELL POTENTIAL**

Shrink-swell potential is the amount of volume change related to a loss or gain in soil moisture; soils swell when wet and shrink when dry. If the shrink-swell potential is rated moderate to high, volume changes can eventually result in damage to subsurface structures if they are not designed and constructed appropriately to resist the changing soil conditions. Soils with high clay content tend to be most affected by shrink and swell. The potential for soil to undergo shrink and swell is greatly enhanced by the presence of a fluctuating, shallow groundwater table. Volume changes of expansive soils can result in the consolidation of soft clays after the water table drops or fill is placed. The soils in the project area have a low to moderate shrink-swell potential and are therefore not considered very expansive.

## **NATURALLY OCCURRING ASBESTOS**

Asbestiform minerals occur naturally in rock and soil as the result of natural geologic processes, often in veins near earthquake faults in the Coast Range and the foothills of the Sierra Nevada. Naturally occurring asbestos can take the form of long, thin, separable fibers. Natural weathering or human disturbance can break naturally occurring asbestos down to microscopic fibers that are easily suspended in air.

There is no health threat if asbestos fibers in soil remain undisturbed and do not become airborne. When inhaled, however, these thin fibers irritate tissues and resist the body's natural defenses. Asbestos, a known carcinogen, causes cancers of the lung and the lining of internal organs, as well as asbestosis and other diseases that inhibit lung function.

The California Geological Survey of the California Department of Conservation (DOC) completed a special report in 2006 that studies the likelihood for the presence of naturally occurring asbestos in Placer County. According to this special report, the project area is located in an area moderately likely to contain naturally occurring asbestos (DOC 2006).

The potential presence of and hazards posed by naturally occurring asbestos are discussed in greater detail in Section 9.1.3, “Existing Air Quality—Toxic Air Contaminants,” in Chapter 9.0, “Air Quality.”

5.1.5 REGIONAL SEISMICITY AND FAULT ZONES

The project area lies within the foothills fault system, which is a large fault system and the dominant structural feature of the western Sierra Nevada. The steeply dipping to vertical component faults trend northwestward through an area approximately 200 miles long and 30 miles wide. Faulted Paleozoic and Mesozoic rocks of this system are overlapped by unfaulted younger rocks. The total extent of the foothills fault system is not known but is probably not limited to the western Sierra Nevada (GSW 2007). The Bear Mountain fault zone is a major segment of the foothills fault system and is within 5 miles of the project area (PCWA 2007, USGS 2007).

The foothills of the Sierra Nevada are characterized by extremely low seismicity. Data compiled by the California Geological Survey show that 10 earthquakes with a magnitude (M) 5.5 or greater on the Richter scale have been recorded within 70 miles of the project area since 1855. The Richter scale is a logarithmic scale that expresses the magnitude of an earthquake in terms of the amount of energy generated, with 1.5 indicating the smallest earthquake that can be felt, 4.5 an earthquake causing slight damage, and 8.5 a very damaging earthquake. The moment magnitude scale, which is a successor to the Richter scale, is also used by seismologist to compare the energy released by earthquakes. Table 5-1 lists regional faults of relevance to the project area, and potential peak site accelerations from hypothetical earthquakes.

Table 5-1 Regional Fault Activity		
Faults Active in the Vicinity of the Project Area	Distance from Project Area (miles)	Probable Maximum Magnitude <sup>1</sup>
Bear Mountain	0–5	6.5
Dunnigan Hills	52	6.5
Mohawk Valley	70	6.5

<sup>1</sup> A measure of earthquake size calculated on the basis of seismic moment called Moment Magnitude (Mw).  
Sources: USGS 2007, Caltrans 1996

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is fault ground rupture, also called surface faulting. Surface ground rupture along faults is generally limited to a linear zone a few meters wide. Common secondary seismic hazards include ground shaking, liquefaction, and subsidence. These hazards are discussed below.

SEISMIC GROUND SHAKING

The most important geologic hazard that could affect the project area is the risk to life and property from an earthquake generated by active and potentially active faults in the foothills fault system.

Ground motions can be estimated by probabilistic method at specified hazard levels. The intensity of ground shaking depends on the distance from the earthquake’s epicenter to the site, the magnitude of the earthquake, site soil conditions, and the characteristics of the source. The *Probabilistic Seismic Hazard Assessment for the State of California* (Petersen et al. 1996), published by USGS and the California Division of Mines and Geology (now known as the California Geological Survey), identifies the seismic hazard based on a review of these characteristics and historical seismicity throughout California. The results of these studies suggest there is 10% probability that the peak horizontal acceleration experienced in the project area would exceed 0.2g in 50 years. Acceleration at 10% in 50 years ranges from about 0.1g to over 1g (DOC 2007).



The DOC specifies more stringent design guidelines where a project would be located adjacent to a Class A or Class B fault as indicated on the California probabilistic seismic hazard maps. Faults with an “A” classification can produce large-magnitude events ( $M$  greater than 7.0), have a high rate of seismic activity (e.g., slip rates greater than 5 millimeters per year), and have well-constrained paleoseismic data (e.g., evidence of displacement within the last 700,000 years). Class B faults are those that lack paleoseismic data necessary to constrain the recurrence intervals of large-scale events. Faults with a “B” classification can produce an event of magnitude 6.5 or greater. A review of the available data indicates that no Class A or B faults are located within 20 miles of the project area (Cao et al. 2003).

## **GROUND FAILURE/LIQUEFACTION**

Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thereby becoming similar to quicksand. Four types of ground failure or collapse of soil structures commonly result from liquefaction: lateral spread, flow failure, ground oscillation, and loss of bearing strength. Age is also a factor in the potential of soils to liquefy; Holocene deposits (those from approximately the last 11,000 years) are the most sensitive to liquefaction.

One consequence that may result from the occurrence of liquefaction is an associated surface expression. If a seismic event occurs over an extended duration, the liquefied soils may migrate toward the surface, resulting in ejection and subsequent sand boiling at the surface.

Liquefaction poses a hazard to engineered structures. Factors determining the liquefaction potential of a given site are the level and duration of possible seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands and peat deposits are susceptible to liquefaction. Liquefaction is particularly likely where land has been reclaimed from inundated areas by filling with loose sand. Clayey silts, silty clays, and clays deposited in freshwater environments are generally stable under the influence of seismic ground shaking.

Soils in the project area contain no sand or silt mineral soil particles; therefore, the project area is not considered susceptible to liquefaction.

## **SUBSIDENCE AND LATERAL SPREADING**

Subsidence of the land surface can be induced by both natural phenomena and human activity. Natural phenomena include subsidence resulting from tectonic deformations and seismically induced settlements; soil subsidence from consolidation, hydrocompaction, or rapid sedimentation; subsidence from oxidation or dewatering of organic-rich soils; and subsidence related to subsurface cavities. Subsidence related to human activity involves withdrawal of subsurface fluids or sediments. Pumping of water from subsurface water tables for residential, commercial, and agricultural uses causes more than 80% of the identified subsidence in the United States (Galloway, Jones, and Ingebritsen 1999).

Lateral spreading is the horizontal movement or spreading of soil toward an open face, such as a streambank, the open side of fill embankments, or the sides of levees. The potential for failure from lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high.

The project area is underlain by consolidated metavolcanic and metasedimentary rocks; therefore, the project area is not considered susceptible to lateral spreading.

## **LANDSLIDING AND SLOPE STABILITY**

As defined by the California Geological Survey, a landslide is the downslope movement of soil and rock material under the influence of gravity. The formation of landslides under natural conditions depends on several factors:

the type of materials, structural properties of the materials, steepness of slopes, water and rainfall, vegetation type, proximity to areas undergoing active erosion, and earthquake-generated ground shaking.

The canyon sides of Coon Creek could be prone to sliding or slumping because gradients reach 50% in some areas. In addition, two soil types in the project area—Auburn–Sobrante–rock outcrop complex and Boomer–rock outcrop—have slopes between 30% and 50%.

## **TIDAL WAVES AND SEISMIC SEICHES**

Earthquakes may affect open bodies of water in two ways: by creating seismic sea waves and by creating seiches. Seismic sea waves (often called “tidal waves”) are caused by abrupt ground movements (usually vertical) on the ocean floor in connection with a major earthquake. Because of the distance of the project area from the ocean (i.e., greater than 100 miles), seismic sea waves would not be a factor. A seiche is a sloshing of water in an enclosed or restricted water body such as a basin, river, or lake, caused by earthquake motion; the sloshing can occur for a few minutes or several hours. In 1868, for example, an earthquake along the Hayward Fault in the San Francisco Bay Area is known to have generated a seiche along the Sacramento River. However, a seiche would not be a factor in the project area because Coon Creek is located a minimum of 400 feet above sea level and water flowing through Coon Creek is swiftly moving, which would not allow a seiche to form. There are no other open bodies of water in the project area.

## **5.2 REGULATORY SETTING**

### **5.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS**

#### **FEDERAL EARTHQUAKE HAZARDS REDUCTION ACT**

In October 1997, the U.S. Congress passed the Earthquake Hazards Reduction Act to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program”. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in November 1990 by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of agency responsibilities and program goals and objectives.

The NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through postearthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRPA designates the Federal Emergency Management Agency as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Other NEHRPA agencies are the National Institute of Standards and Technology, the National Science Foundation, and USGS.

### **5.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS**

#### **CALIFORNIA BUILDING STANDARDS CODE**

The State of California provides minimum standards for building design through the California Building Code (CBC) (Title 24 of the California Code of Regulations). Where no other building codes apply, Chapter 29 of the CBC regulates excavation, foundations, and retaining walls. The CBC also applies to building design and construction in the state and is based on the federal Uniform Building Code, which is used widely throughout the country and generally adopted on a state-by-state or district-by-district basis. The CBC has been modified for California conditions with numerous more detailed and/or more stringent regulations.



The state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum requirements for seismic safety and structural design are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design.

Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, and Appendix Chapter A33 regulates grading activities, including drainage and erosion control, and construction on unstable soils, such as expansive soils and liquefaction areas.

## **CALIFORNIA SEISMIC HAZARDS MAPPING ACT**

The California Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) addresses seismic hazards other than surface rupture, such as liquefaction and induced landslides. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

## **ALQUIST-PRIOLO FAULT ZONING ACT**

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code Sections 2621–2630) was passed by the California Legislature in 1972 to mitigate the hazard of surface faulting to structures. The main purpose of the act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. Local agencies must regulate most development in fault zones established by the State Geologist. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

## **ASBESTOS AIRBORNE TOXIC CONTROL MEASURE**

The California Air Resources Board has promulgated an Asbestos Airborne Toxic Control Measure (AATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (California Code of Regulations Title 17, Section 93105). In accordance with Section 39666(d) of the California Health and Safety Code, the AATCM became enforceable by the air quality management districts (AQMDs) on November 19, 2002. Any person who intends to commence construction and/or grading activities on more than 1 acre must submit an asbestos dust mitigation plan for approval by the AQMD's air pollution control officer before beginning any applicable construction or grading activities. In general, the AATCM specifies that an asbestos dust mitigation plan must include the following measures:

- ▶ measures for preventing vehicle track-out;
- ▶ measures for wetting or covering of active storage piles;
- ▶ controls for inactive disturbed areas and storage piles;
- ▶ control of traffic on on-site unpaved roads, parking lots, and staging areas;
- ▶ controls for earthmoving activities;
- ▶ control of off-site transport;
- ▶ post-construction stabilization measures;
- ▶ ambient air monitoring, if required by the air pollution control officer, and reporting of any results; and
- ▶ recordkeeping and reporting requirements.

See Chapter 9.0, “Air Quality,” for background on the potential for asbestos to occur in the project area, and the projects compliance with the AATCM.

## 5.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

### PLACER COUNTY GRADING ORDINANCE

The grading and erosion prevention ordinance of Placer County (referred to herein as the County Grading Ordinance) (Article 15.48 of the County Code) regulates grading on property within the unincorporated area of Placer County for the following purposes:

- ▶ to safeguard life, limb, health, property, and public welfare;
- ▶ to avoid pollution of watercourses with hazardous materials, nutrients, sediments, or other earthen materials generated on or caused by surface runoff on or across the permit area; and
- ▶ to ensure that the intended use of a graded site is consistent with the *Placer County General Plan* (General Plan), any adopted specific plans, applicable County ordinances (e.g., the zoning ordinance, flood damage prevention ordinance, and environmental review ordinance), and applicable chapters of the CBC.

### PLACER COUNTY GENERAL PLAN

The following are the relevant goals and policies identified by the General Plan (Placer County 1994) for soils, geology, and seismicity.

**GOAL 8.A:** To minimize the loss of life, injury, and property damage due to seismic and geological hazards.

- ▶ **Policy 8.A.1.** The County shall require the preparation of a soils engineering and geologic-seismic analysis prior to permitting development in areas prone to geological or seismic hazards (i.e., groundshaking, landslides, liquefaction, critically expansive soils, avalanche).
- ▶ **Policy 8.A.4.** The County shall ensure that areas of slope instability are adequately investigated and that any development in these areas incorporates appropriate design provisions to prevent landsliding.
- ▶ **Policy 8.A.5.** In landslide hazard areas, the County shall prohibit avoidable alteration of land in a manner that could increase the hazard, including concentration of water through drainage, irrigation, or septic systems; removal of vegetative cover; and steepening of slopes and undercutting the bases of slopes.
- ▶ **Policy 8.A.6.** The County shall require the preparation of drainage plans for development in hillside areas that direct runoff and drainage away from unstable slopes.
- ▶ **Policy 8.A.9.** The County shall require that the location and/or design of any new buildings, facilities, or other development in areas subject to earthquake activity minimize exposure to danger from fault rupture or creep.
- ▶ **Policy 8.A.10.** The County shall require that new structures permitted in areas of high liquefaction potential be sited, designed, and constructed to minimize the dangers from damage due to earthquake-induced liquefaction.
- ▶ **Policy 8.A.11.** The County shall limit development in areas of steep or unstable slopes to minimize hazards caused by landslides or liquefaction.

## 5.3 IMPACTS

### 5.3.1 ANALYSIS METHODOLOGY

Evaluation of potential impacts on soils, geology, and seismicity was based on a review of documents pertaining to the project area, including the General Plan; field review of the project area; review of geologic maps; and review of published and unpublished geologic literature. Impacts related to soils, geology, and seismicity that would result from implementation of the proposed project have been identified by comparing existing data and environmental information with proposed project features.

### 5.3.2 THRESHOLDS OF SIGNIFICANCE

#### CEQA THRESHOLDS

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a significant impact related to soils, geology, and seismicity if it would:

- ▶ expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault;
  - strong seismic ground shaking;
  - seismic-related ground failure, including liquefaction;
  - landslides;
- ▶ result in substantial soil erosion or the loss of topsoil;
- ▶ be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- ▶ be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risk to life or property; or
- ▶ have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems, where sewers are not available for the disposal of wastewater.

#### ISSUES NOT ANALYZED FURTHER

The proposed project would have no impact associated with the following issues, and these issues will not be analyzed further in this chapter:

- ▶ **Ground Failure/Liquefaction:** The project area is underlain by consolidated metavolcanic and metasedimentary rocks that are not susceptible to liquefaction. In addition, regional groundwater levels are expected to be greater than 50 feet in depth. Therefore, the potential for liquefaction is low.
- ▶ **Subsidence and Lateral Spreading:** Subsidence can result from tectonic deformations and seismically induced settlements; consolidation, hydro-compaction, or rapid sedimentation of soil; oxidation or dewatering

of organic-rich soils; and subsurface cavities. The potential for failure from lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high. The project area is underlain by consolidated metavolcanic and metasedimentary rocks that are not susceptible to liquefaction. In addition, as mentioned above, regional groundwater levels are expected to be greater than 50 feet in depth. Therefore, the risk of subsidence and lateral spreading is low.

- ▶ **Tsunami:** The potential for a tsunami in the project area is considered negligible because of the distance from the ocean, where tsunamis originate.
- ▶ **Seiche:** The potential for damaging seiches is considered very low to negligible because of the absence of a deep, large, open body of water adjacent to or in the project area.
- ▶ **Expansive Soils:** The soils in the project area have a low to moderate shrink-swell potential and are, therefore, not expansive.
- ▶ **Mineral Resources:** As mentioned at the beginning of this chapter, the proposed project would have no effect on mineral resources because it would not result in the loss of any known mineral resources and would not impede or interfere with mineral extraction operations, and because the project area is not delineated as a locally important recovery site.

### 5.3.3 IMPACT ANALYSIS

<b>IMPACT</b> 5-1	<b>Soils, Geology, and Seismicity—Construction- and Operation-Related Erosion Hazards.</b> <i>Based on soil types and topography, the excavation and grading of soil in the project area could result in erosion during project construction, particularly during periods of strong winds or storm events. In addition, use and maintenance of the Park could result in erosion over time.</i>
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<b>Significance</b>	<i>Potentially Significant</i>
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<b>Mitigation Proposed</b>	<i>Mitigation Measure 5-1: Obtain Authorization for Construction and Operation Activities from the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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Rock outcrop complexes located in the project area are characterized as having no erosion potential. However, the various soil types (i.e., Auburn, Argonaut, Boomer, Sobrante) in the project area are characterized as having slight to high erosion hazards. Construction activities associated with the new parking areas, new facilities and structures, and new trail system would require excavation and grading of soil to install the necessary foundation for these recreational facilities (i.e., trails, bridges, picnic areas). Cut and fill within the Park would generally be balanced. Table 5-2 shows approximate grading amounts for each type of project facility. It is not anticipated that large amounts of material would be either imported to the site or exported off-site. Road improvements along Garden Bar Road (i.e., widening) would require grading to create a level foundation for laying new pavement and potentially excavation of existing pavement. Some fill material may need to be imported for road improvements to Garden Bar Road. The amount of material needed would be determined during the design stage for road improvements. These excavation and grading activities could result in localized erosion during construction by removing vegetative cover and exposing disturbed areas to wind and storm events.

Specific to project area, proposed major buildings would be constructed in the facility development zone and topography at the specific area identified for new buildings or structures is relatively flat and would not require significant excavation for foundations.

<b>Table 5-2 Soil Grading Amounts by Facility Type</b>	
<b>Project Facility</b>	<b>Grading Amount (Cubic Yards)</b>
<b>Off-site Road Improvements</b>	
Widening and improvements along Garden Bar Road	3,000
Widening along access road (between Garden Bar Road and the Park entrance)	1,200
<b>On-site Facilities</b>	
Western parking area	1,500
Construction and improvements in vicinity of ranch house	500
Trails	13,000
Didion parking area expansion	1,500
<b>Total Grading</b>	<b>20,700</b>

Natural surface trails would be constructed in a similar manner as those constructed in the Didion Ranch portion of the Park. Soil generated by full-bench trail excavation would be side cast below the location of excavation eliminating the need for soil export. Trail construction features would include grade reversals and outsloping, as well as Best Management Practices (BMP's) to prevent erosion, such as preservation of existing vegetative buffer, rock-protected outfalls, and topical seeding/straw mulch application. These types of features have shown to be effective in erosion prevention and trail stability at the Didion Ranch portion of the Park and would be incorporated into new trail construction.

Grading activities would occur on steep slopes located along Coon Creek which could affect water quality of Coon Creek. Grading activities at numerous locations adjacent to Garden Bar Road would also increase the potential for wind erosion during project construction or water erosion during a storm event.

In addition, use of the trails and other facilities, and maintenance within the Park could cause long-term erosion. The proposed trail system would be maintained as a natural-surface trail system that would increase the amount of soil exposed to wind and water erosion, and use of the trails by hikers, bikers, and equestrians could cause some long-term erosion. Regular maintenance in the Park in areas of exposed soil could also cause erosion during operation of the Park.

Because the project has the potential to result in soil erosion from construction activities within the Park and along Garden Bar Road and use and maintenance within the Park, this impact would be potentially significant.

Implementation of Mitigation Measure 5-1 would reduce this impact to a less-than-significant level.

**IMPACT 5-2**      **Soils, Geology, and Seismicity—Risks to People from Naturally Occurring Asbestos.** *Disturbance of naturally occurring asbestos fibers could create a health hazard. The project area is located in an area that is moderately likely to contain naturally occurring asbestos, and disturbance of soil during construction could expose workers to asbestos.*

Significance *Potentially Significant*

Mitigation Proposed *Mitigation Measure 9-1 in Chapter 9.0, "Air Quality": Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed*

Residual Significance *Less than Significant*

According to the latest information available from the DOC, the project area is located in an area identified as moderately likely to contain naturally occurring asbestos because of the metamorphic and igneous rocks found in these areas that have chemical and/or physical characteristics that are favorable for the presence of naturally occurring asbestos.

The most likely settings for naturally occurring asbestos in these areas are in fault zones and shear zones that contain slivers of serpentinite and/or talc-chlorite schists. Small sheets and slivers of serpentinite too small to show on geologic maps (some of them less than 1 foot thick) are widely distributed in shear zones in the Sierra Nevada foothills. Also according to DOC, the project area is located in an area of faulting or shearing rock that may locally increase the relative likelihood of the presence of naturally occurring asbestos (DOC 2006).

Because the project area is located in an area identified as potentially containing naturally occurring asbestos, construction activities that involve soil disturbance (e.g., grading, excavation) for new facilities and structures (e.g., roadways, trails, restrooms, bridges) could expose workers to increased health risks from inhaling dust that contains asbestos. For this reason, this impact would be potentially significant.

Implementation of Mitigation Measure 9-1 in Chapter 9.0, "Air Quality," would reduce this impact to a less-than-significant level.

**IMPACT 5-3** **Soils, Geology, and Seismicity—Risks to People and Structures Caused by Strong Seismic Ground Shaking or Fault Rupture.** *The project area has the potential to be affected by shock waves resulting from earthquakes in distant areas that display greater seismic activity. In addition, the Bear Mountain Fault is located within 5 miles of the project area. Although all project facilities would be designed and constructed in accordance with the current design requirements for the California Building Code and the project area is not located in an Alquist-Priolo Earthquake Fault Zone, the project could construct buildings or structures across an active fault.*

Significance *Potentially Significant*

Mitigation Proposed *Mitigation Measure 5-2: Obtain and Implement Seismic Engineering Design Recommendations*

Residual Significance *Less than Significant*

Four notable earthquakes have been reported in the northern Sierra Nevada, and the project area has the potential to be affected by shock waves resulting from earthquakes in distant areas that display greater seismic activity (e.g., the San Francisco Bay area). Therefore, the potential exists for earthquakes to occur in the project vicinity in the future. In addition, the Bear Mountain fault is within 5 miles of the project area and is identified by USGS as having "been active in the last 2 million years and is thought to pose a measurable hazard." The exact location of the Bear Mountain Fault is not known; however, according to documentation provided by DOC and USGS, the Bear Mountain Fault is located within 5 miles of the project area. Although the exact location of the fault line is

not known, one of the buildings on-site would be used for human occupancy (i.e., a caretaker residence). The intensity of ground shaking would depend on the magnitude of the earthquake, the distance from the epicenter, and the duration of shaking. The damage sustained and the degree of hazard depend on the seismic hazards of each specific site, the type of structure and its building materials, and construction quality.

The proposed project involves developing new recreational facilities, renovating existing buildings, and constructing new buildings on-site. The potential exists for new buildings or structures could be located across a fault trace or within 50 feet of such a trace (i.e., Bear Mountain fault). Because the Bear Mountain fault is identified as being “active,” there is the potential for surface rupture to occur. Although all project-related facilities and structures would be designed and constructed in accordance with the current design requirements for the CBC and the project area is not located in an Alquist-Priolo Earthquake Fault Zone (PCWA 2007), the project could construct buildings and/or structures across an active fault trace. Because the project could create a substantial increased risk of injury or property damage from strong seismic ground shaking and/or fault rupture, this impact would be potentially significant.

Implementation of Mitigation Measure 5-2 would reduce this impact to a less-than-significant level.

<b>IMPACT</b> 5-4	<b>Soils, Geology, and Seismicity—Risks to People and Structures Caused by Landslides.</b> <i>Although stable slope conditions and drainage patterns may change with site alterations (e.g., cuts, fills) associated with construction of recreation facilities in the Park, field review of the project area identified no areas of shallow slope instability and/or small landslide areas. Therefore, the risk of a landslide is considered low.</i>
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<b>Significance</b>	<i>Less than Significant</i>
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<b>Mitigation Proposed</b>	<i>None Warranted</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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Topographic maps of the project area show steep slopes along Coon Creek and along smaller valleys and gullies located in other currently inaccessible portions of the proposed Park. Transects taken for portions of Coon Creek show slopes reaching 50% gradient. Construction activities could affect steep slopes within the project area as a result of constructing new bridges, roadways, or trails and currently stable conditions could be changed by slope alterations (e.g., cuts, fills). Slope alterations required to construct new facilities or structures could also result in removing existing ground vegetation that could be needed to stabilize steep slopes.

The project proposes to construct new trails and bridges across Coon Creek; however, construction in areas with steep slopes would be avoided. In addition, road improvements along Garden Bar Road (i.e., widening) would require grading to create a level foundation for laying new pavement and potentially excavation of existing pavement. Several portions of Garden Bar Road are located adjacent to steep slopes. Similar to construction of new trails, construction in areas along Garden Bar Road with steep slopes would be avoided, if possible. In addition, soils in the project area are identified as being well-drained, and field review of the project area, including along Garden Bar Road, identified no areas of shallow slope instability or small landslide areas.

Because construction on steep slopes would be avoided and no areas of shallow slope instability have been identified, this impact would be less than significant.

**IMPACT 5-5**      **Soils, Geology, and Seismicity—Limited Ability for Soils to Support Operation of a Wastewater Disposal System.** *Soils in the project area are identified by USGS as having limitations for the use of septic tanks. However, on-site soil testing for the project has confirmed soils capable of supporting a conventional septic system.*

**Significance**    *Less than Significant*

**Mitigation Proposed**    *None Warranted*

**Residual Significance**    *Less than Significant*

The project would include the construction and operation of a septic system to dispose of effluent generated by on-site restroom facilities and visitor structures (e.g., nature center, caretaker facility). The septic system would be located in the southwest portion of the Park within the facility development zone.

Soil data provided by USGS indicate limitations of project area soils to support the use of septic system absorption fields where effluent from a septic tank is distributed into the soil through subsurface or perforated pipe (USGS 2007). However, on-site soil testing completed as part of the project indicated soils in the southwest portion of the Park are capable of supporting a conventional septic system that would be sized to accommodate maximum daily use. Reservoir-based events would be reviewed on a case-by-case basis to determine if adequate capacity exists. The proposed septic system would be designed to have a 5-foot separation to groundwater or impermeable layer for leach lines, 150-foot setback from any public wells, and 100-foot setback from any creeks to meet Central Valley Regional Water Control Board (RWQCB) and Placer County Environmental Health Division standards (Placer County 2006). Because on-site soils are capable of accommodating a conventional septic system and the system would be designed to meet RWQCB and Environmental Health Division standards, this impact would be less than significant.

## 5.4 MITIGATION MEASURES

**Mitigation Measure 5-1: Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required.**

*Mitigation Measure 5-1 applies to Impact 5-1.*

**A: Implement Stormwater BMPs.**

Water quality BMPs shall be designed according to the *Stormwater Best Management Practice Handbooks for Construction, for New Development and Redevelopment* (CSQA 2003).

Storm drainage from on- and off-site impervious surfaces (including roads) shall be collected and routed through specially designed catch basins, vegetated swales, vaults, infiltration basins, water quality basins, or filters for entrapment of sediment, debris and oils/greases, and other identified pollutants, as approved by the County. BMPs shall be designed at a minimum in accordance with the *Guidance Document for Volume and Flow-Based Sizing of Permanent Post-Construction Best Management Practices for Stormwater Quality Protection* (Placer Regional Stormwater Coordination Group 2005).

No water quality facility construction shall be permitted within any identified wetlands area, floodplain, or right-of-way, except as authorized by appropriate regulatory authorities.



All BMPs shall be maintained as required to ensure effectiveness.

#### **B: Obtain RWQCB Permit and Implement Construction BMPs.**

Projects with ground disturbance exceeding 1 acre that are subject to construction storm water quality permit requirements of the National Pollutant Discharge Elimination System (NPDES) program shall obtain such permit from the Regional Water Quality Control Board and shall obtain evidence of a state-issued Waste Discharge Identification number or filing of a Notice of Intent and fees prior to start of construction.

This project is located within the area covered by the County's municipal stormwater quality permit, pursuant to the NPDES Phase II program. Project-related storm water discharges are subject to all applicable requirements of said permit. BMPs shall be designed to mitigate (minimize, infiltrate, filter, or treat) storm water runoff in accordance with "Attachment 4" of Placer County's NPDES Municipal Stormwater Permit (State Water Resources Control Board NPDES General Permit No. CAS000004).

Construction (temporary) BMPs for the project include, but are not limited to:

- ▶ Use temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils;
- ▶ Store materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water;
- ▶ Use water for dust control;
- ▶ Construct sediment control basins;
- ▶ Regular sweeping of entry and exit areas to minimize off-site sediment transport;
- ▶ Install traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and
- ▶ Use barriers, such as straw bales, perimeter silt fences, or placement of hay bales, to minimize the amount of uncontrolled runoff that could enter drains or surface water.

#### **C: Implement Post-Development BMPs.**

Post-development (permanent) BMPs for the project include, but are not limited to:

- ▶ The project will have an effective system of erosion and sedimentation control, consisting of vegetative and structural measures and management practices, to reduce the damage of erosion and costly clean-up procedures.
- ▶ Following trail construction, wattles/fiber rolls and/or gravel-filled bags will remain in place until permanent stabilization measures have proven successful.
- ▶ For the duration of the project, storm drainage within ditch systems associated with switchback construction will have stabilized ditch protection. This will consist of filter fabric, mulch, or a 3-inch gravel base.
- ▶ Plan development to fit the particular topography, soils, waterways, and natural vegetation of the site, to avoid the creation of erosion problems on the site.
- ▶ Reduce erosion hazards and runoff volumes and velocity by limiting the length and steepness of slopes. Slopes subject to erosion should not be steeper than 2:1 horizontal to vertical.

- ▶ Break up long steep slopes by benching, terracing, or diversion structures.
- ▶ Use existing vegetation to control erosion to (a) shield the soil surface from rain, (b) increase infiltration, (c) reduce velocity of runoff and (d) hold soil in place and act as a filter.
- ▶ Time the project so that grading and construction occur during the normal dry season to the extent feasible.
- ▶ The County shall also consult with the RWQCB to acquire the appropriate regulatory approvals that may be necessary to obtain Section 401 water quality certification.

#### Mitigation Measure 5-2: Obtain and Implement Seismic Engineering Design Recommendations.

*Mitigation Measure 5-2 applies to Impact 5-3.*

- a. Prior to issuance of grading permits, the applicant shall obtain the services of a qualified, licensed geotechnical engineer to examine for traces of the Bear Mountain fault within the project area. If traces of the Bear Mountain fault cross the project area, a qualified, licensed geotechnical engineer shall develop engineering design recommendations for the project area. The recommendations shall include calculation of seismic shaking hazards using the appropriate computer modeling software, and shall include specific structural design recommendations to minimize potential damage to buildings and structures from seismic events. The recommendations shall also include an examination of the traces of the Bear Mountain fault system within the project area, including surface reconnaissance, and shall make recommendations for building foundation and infrastructure design accordingly. All appropriate design recommendations shall be implemented during the project design and construction phases.
- b. No structures intended for human occupancy shall be constructed within a 100-foot-wide no building zone over the Bear Mountain fault traces. However, following completion of the seismic study required in (a) above, the no building zone may be modified if recommended by the geotechnical engineer.
- c. Prior to issuance of grading permits, the County shall obtain the services of a qualified, licensed geotechnical engineer to prepare a comprehensive final geotechnical report for the entire project area with specific design recommendations sufficient to ensure the safety of soil conditions, project structures, and site occupants. The report shall include project design and construction recommendations to address:
  - Site preparation and grading, including surface and subsurface prep work, engineered fill materials, fill placement and compaction, trench backfill, and surface drainage;
  - Foundation requirements specific to the location of each component of the proposed project;
  - Concrete slabs-on-grade, both interior and exterior;
  - Retaining and below grade walls; and
  - Pavements.

The seismic engineering design recommendations shall be incorporated into the project design. The County shall insure adequate field inspection during construction.

## 6.0 CULTURAL RESOURCES

This chapter discusses the cultural resources setting for the proposed project, analyzes the potential impacts on cultural resources that could result from the implementation of the proposed project, and describes mitigation measures to reduce those impacts.

### 6.1 EXISTING CONDITIONS

An abundance of natural resources and varied topography made the Sierra Nevada foothills, including the project area, an attractive location for prehistoric land uses and historic-era settlement. Although best known as the placer mining area that played a pivotal role in the Gold Rush of the late 1840s and the 1850s, early Native American sites can be found throughout the region as well, especially along perennial drainages such as Coon Creek.

#### 6.1.1 PREHISTORIC ARCHAEOLOGICAL CONTEXT

Archaeological research within the Sierra Nevada and lower foothill regions over the past several decades has resulted in a substantial amount of new information about prehistory. Researchers have proposed numerous cultural systems and related chronologies in an attempt to trace cultural and technological change through time.

For the Sacramento Valley and foothill regions, Lillard and Purves (1936) recognized a three-part cultural sequence (Early, Middle, and Late Horizons) that was derived from archaeological analysis of midden and cemetery sites in Central California. This scheme was later described in more detail by Lillard, Heizer, and Fenenga (1939) and was refined by Beardsley (1948, 1954). In an attempt to unify the various hypothesized cultural periods in California, Fredrickson (1973, 1974, 1993) proposed an all-encompassing scheme for cultural development, while acknowledging that these general trends may manifest themselves differently and that there may be some variation between subregions. These general cultural periods (Paleo-Indian, Early, Middle and Late Archaic, and Emergent) are used here in connection with the chronology of prehistoric culture in the north-central Sierra Nevada, given the proximity of the project area to the Sacramento Valley.

Relevant to the project area is the document *Framework for Archaeological Research and Management: National Forests of the North-Central Sierra Nevada* (Jackson et al. 1994), which proposes a tentative cultural chronology and cultural history for the north-central Sierra Nevada. The proposed cultural chronology has been further refined through investigations conducted along the South Fork American River by Tremaine and Jackson (1994, 1995), and Boyd (1998), and has been synthesized by Jackson and Ballard (1999). This extensive analysis provides the most recent and relevant cultural/technological chronology for the project area, and forms the basis for the following discussion.

#### LATE PLEISTOCENE PERIOD

Archaeological sites dating to the earliest human occupation in the Sierra Nevada foothills and eastern Sacramento Valley (more than 10,000 years B.P. [before present]) have rarely been encountered. Possible exceptions are CA-SAC-370 and CA-SAC-379, located near Rancho Murieta (approximately 30 miles south-southeast of the project area). They produced numerous bifaces, cores, and raw materials (which may be indicative of prehistoric quarrying operations) from gravel strata estimated to be 12,000–18,000 years old (Moratto 1984).

#### EARLY HOLOCENE PERIOD

Jackson and Ballard (1999) use the all-encompassing Western Pluvial Lakes Tradition to describe this broad time frame (ca. 10,000–7000 B.P.). As they point out, this period was first defined by Bedwell (1970) as a human

adaptation to lake, marsh, and grassland environments that were prevalent around 11,000 B.P.; however, the tradition slowly disappeared ca. 8000–7000 B.P.

In the surrounding regions in California, only small isolated locales (e.g., CA-CAL-S342 [Peak and Crew 1990] and CA-CAL-629 and CA-CAL-630 [under analysis by California State University, Fresno]) have thus far yielded substantial data indicating a presence by peoples along the western front of the Sierra Nevada before 7000 B.P., and both of these have been in the foothill regions to the south of the project area.

## **ARCHAIC PERIOD**

Characterized by generally warm and dry climatic conditions and interrupted by brief cool, wet conditions, this period (ca. 7000–3200 B.P.) appears to correspond with the appearance of handstones and milling slabs, suggesting that people were gathering and using more vegetal resources, such as seeds and other botanical constituents. Jackson and Ballard (1999) also suggest that the early part of this period (7000–4500 B.P.) can be defined by the presence of concave-base and side-notched obsidian bifaces on archaeological sites. Stemmed and large corner-notched obsidian projectile points occur during latter part of this period (4500–3200 B.P.).

Sites in the Central Valley also indicate that a great deal of trade was taking place at this time, as evidenced by the presence of obsidian from outside the area, *Haliotis* and *Olivella* shell beads and ornaments, quartz crystals, and other exotic materials (Heizer 1949, 1974; Moratto 1984). Connections between the Great Basin and Central Valley appear to have been established at least by 4000 B.P., and possibly as early as 7000 B.P., as evidenced by the exchange of marine shell beads and other artifacts for obsidian from the east side of the Sierra Nevada crest. Although this was primarily a phenomenon of the Sacramento Valley and lower foothills, similar culture elements are found at elevations up to 3,000 feet, in the foothills of the west slope, suggesting that peoples of this time frame may have acted as “middlemen” within this trade network (Bennyhoff and Heizer 1958, Bennyhoff and Hughes 1983).

## **EARLY SIERRAN PERIOD**

This period (ca. 3200–1400 B.P.) is marked by the abundant presence of milling slabs and handstones, a substantial increase in the production of obsidian tools, and a climatic shift to a cool, wet regime. Small social and residential groups moved within the area in response to the presence of resources, exploiting resources within range of each archaeological site. Ritter noted that evidence at CA-PLA-101, located near Auburn, indicates that this was a period of seasonal occupation and land use with similarities in artifact types (i.e., projectile points) found in contexts east of the Sierra Nevada crest, but that this similarity decreases below 2,500 feet in elevation, (Ritter 1971), which would include the current project area.

## **MIDDLE SIERRAN PERIOD**

This period (ca. 1400–600 B.P.) corresponds with a dramatic decrease in the use of obsidian, not only in the subregion, but throughout the Sierra Nevada (Hall 1983, Bouey and Basgall 1984). During this time there is also a major improvement associated with the introduction of bow and arrow technology. Widespread changes occur at similar time frames throughout central California and the western Great Basin. Social disruption is inferred from changes in artifact assemblages and land use patterns and a high incidence of violent death. This pattern is followed by relatively intensive land use, active trade, and the establishment of permanent settlements in some regions, inferred as reflecting increased populations (Jackson and Ballard 1999).

## **LATE SIERRAN PERIOD**

Regionally, this period (ca. 600–150 B.P.) is characterized by continued intensive use of the western slope of the Sierra Nevada, including significant use of acorns, but with less of a focus on seeds; exploitation of fauna, including deer and rabbits; year-round occupation of sites below 3,500 feet; and short-term seasonal occupation of

mid- to high-elevation Sierra Nevada sites. The presence of single-component sites dating to this time period is given as evidence for this intensified use (Jackson and Ballard 1999). In some subregions, the use of the small points with contracting stems disappears abruptly and is replaced by small Desert Side-notched types, with the continued use of small corner-notched points. However, Jackson and Ballard (1999) suggest the possible reemergence of large corner-notched, stemmed, and contracting stemmed points during the latter portion of this period.

### 6.1.2 ETHNOGRAPHIC CONTEXT

Ethnographically, the project area is situated within the Nisenan (sometimes referred to as Southern Maidu) sphere of influence. A brief review of the ethnographic literature follows and is of value in assessing the archaeological sites that are the static remains of past activity. However, archaeological data have the potential to reconstruct patterns of former dynamic cultural systems (Binford 1980). It is through the use of ethnographic data applied to archaeology that an archaeologist has the best chance to recreate past cultural adaptations (Binford 1980).

Kroeber (1925) recognized three Nisenan dialects: Northern Hill, Southern Hill, and Valley. The Nisenan territory included the drainages of the Yuba, Bear, and American Rivers, and the lower drainages of the Feather River, extending from the crest of the Sierra Nevada to the banks of the Sacramento River. According to Bennyhoff (1961), the southern boundary with the Miwok was probably a few miles south of the American River, bordering a shared area used by both Miwok and Nisenan groups that extended to the Cosumnes River. It appears that while the foothill Nisenan had distrust for the valley peoples, the relationship between the Nisenan and the Washoe to the east was primarily friendly. Elders recall intergroup marriage and trade, primarily involving the exchange of acorns for fish procured by the Washoe (Wilson 1972).

Native American groups would have exploited any number of faunal and floral resources. However, as in many foothill and valley regions throughout California, various species of oak provided the most important staple food, although the black oak (*Quercus kelloggi*) was apparently the most preferred (Matson 1972). Early-fall acorn harvests provided the region's native inhabitants with a reliable, large-scale food source that could sustain populations through the winter months. Other important floral foodstuffs capable of being stored for long periods included nuts from the gray pine (*Pinus sabiniana*) and buckeye (*Aesculus californica*), as well as hazelnuts (*Corylus rostrata*).

Native Americans used numerous techniques and weapons for hunting, including the bow and arrow, drives, and decoys. Nets, traps, rodent hooks, and fire were all used in hunting small game. Fish could be caught with nets, gorges, hooks, and harpoons within the larger perennial drainages of the foothill regions. One technique apparently involved using soap root and turkey mullein to poison the water so that fish could be gathered easily. Freshwater clams and mussels were also gathered in the larger waterways, such as the American River. Other aquatic food sources available to native populations near the project area would have included fish such as salmon and sturgeon, which would have been netted or caught with the aid of weirs.

The virtual destruction of the Nisenan culture in the 19th century paired with the traditional Nisenan reluctance make it difficult to discuss Nisenan spiritual beliefs and practices in any detail. However, historic records document several observances and dances, some of which are still performed today, that were important ceremonies in early historic times. In general, the basic religious system noted throughout central California, the Kuksu cult, appeared among the Nisenan. Cult membership was restricted to those initiated in its spirit and deity-impersonating rites. However, the Kuksu cult was only one of several levels of religious practice among the Nisenan. Various dances associated with mourning and the changing of seasons were also important. One of the last major additions to Nisenan spiritual life occurred sometime shortly after 1872 with a revival of the Kuksu cult as an adaptation to the Ghost Dance religion (Wilson and Towne 1978). Today descendants of the Nisenan continue to live in the Sierra Nevada foothills, where they are involved in reviving their cultural identity and the preservation of their cultural past.

## **6.1.3 HISTORICAL CONTEXT**

### **EXPLORATION AND EARLY IMMIGRANT ROUTES**

The Sierra Nevada foothills and the Sacramento Valley were virtually unsettled by Europeans other than early Spanish explorers before the Gold Rush. In 1844 the Stevens-Townsend-Murphy Party entered California via Donner Pass, passing along the divide just north of the North Fork American River near Auburn (Egan 1977 in Jackson et al. 1982). John Fremont traversed this same route a year later. However, this route was not the first to be used by immigrant groups immigrating to California. The first was the Bidwell-Bartelson Party, which crossed into Tuolumne County in 1841 and was followed by others who were using the Pit River route to the north.

### **GOLD RUSH ERA**

A wave of gold seekers descended on California, and specifically the foothill and mountain regions of the Sierra Nevada, after gold was discovered at Coloma on the South Fork American River in January 1848. The 1850 U.S. Census, while most likely biased against minority groups that tend to be underrepresented, put the population of Placer County at 11,417. This total consisted of 6,945 whites, 3,019 Chinese, 89 blacks, 634 other foreign races, and 730 Native Americans (U.S. Census 1850).

### **PROGRESSION OF MINING TECHNOLOGY**

To interpret the remains of mining operations found within the project area, it is necessary to look at the progression of mining practices in the region in the context of the gold-bearing deposits, the progression of mining technology, and the application of capital. Restrained by technology and capital, gold production, like other mining operations, has gone through periods of boom and bust. Initially, during the late 1840s, gold deposits were easily accessed, and technology and capital outlay was limited to a pan, pick, and shovel. With this technology, mining was at first concentrated on productive gravel and sand-bar deposits located along perennial drainages.

Other than the simple pick, pan, and shovel methods used in the earliest days of the Gold Rush, with only a small amount of additional capital, an increased amount of gravel could be processed using a rocker—a rectangular box, about 4 feet long and mounted on rockers, that sorted gravel and collected gold in riffles located at the bottom. Use of this device resulted in the formation of cooperatives in which claims could be worked by small groups, with one person digging gravel, another loading the gravel into the rocker, and a third pouring water into the device to wash the gravel deposits. Although Euro-American miners who favored more technologically advanced methods abandoned these devices by the mid-1850s, rockers continued to be used by the Chinese into the 1900s (Williams 1930 in Maniery 1992).

Two other devices used by early placer miners were the “Long Tom,” which became common by around 1850, and its variant, the longer sluice box, which came into use by 1851. Both required a constant flow of water from one end while dirt was shoveled in from the sides and gold was trapped in riffles at the bottom of the apparatus. Because a larger amount of dirt and gravel could be processed, larger groups operated these extraction devices (Kelly and McAleer 1986, Williams 1930 in Maniery 1992).

Both of these methods required large amounts of water, but ground sluicing required even greater amounts. This technique consisted of washing gold-bearing gravels over exposed bedrock. Parallel rows of stacked stones at acute angles are commonly found at ground sluicing sites. Because of this patterning, some have suggested that they are associated with Chinese mining operations. However several studies at mining sites with both Chinese and Euro-American miners have found no correlation with ethnicity (Johnson and Theodoratus 1984a, 1984b; Lindstrom 1988; Kelly and McAleer 1986; LaLande 1981, 1983a, 1983b, 1985; Ritchie 1981; Steeves 1984; Tordoff and Seldner 1987 in Maniery 1992). At first these methods were used to mine the easily accessed placer

deposits along the rivers and streams, and as these gave out, attention turned to the Eocene and Tertiary gravels situated on the slopes and ridges surrounding drainages.

The next technological event to affect how gold was extracted was the advent of hydraulic mining. The development of this method is attributed to Anthony Chabot and Edward Matteson, who were the first to use hydraulic mining at Buckeye Hill and American Hill near Nevada City. At first, low-pressure canvas hoses and nozzles were used. However, these were rapidly replaced by iron pipe and improved nozzles, allowing water to be diverted under much greater pressure. Although there is no mention of hydraulic mining within the project area, this method was employed farther east at Hayden Hill and Green Valley. Millions of tons of silt and sand washed into streams and rivers as a result of these operations, clogging drainages from the foothills to San Francisco Bay. As a response to numerous lawsuits, an injunction was imposed against the industry in 1884, and the Caminetti Act authorized the U.S. Army Corps of Engineers (USACE) to oversee hydraulic mining operations.

## **LOCAL MINING EXPRESSIONS**

Mining sites consist of concentrations of artifacts and features that reflect the plethora of operations and technologies that have been used in the area. These cycles of occupation and abandonment create layers or components of mining technology and systems that are horizontally stratified, often altering or obliterating previous operations, and that can often be viewed as discontinuous with underground structure (Hardesty 1988). Many times only fragments of technologies and operations are visible. For example, Lindstrom (1989) found that finer sediments were carried away during the washing process of placer mining operations, and only larger cobbles or boulders remained at the processing site.

Mining camps were ubiquitous in mid-19th century Placer County. Some of the known camps—Dutch Flat, Horseshoe Bar, Smith’s Bar, and Iowa Hill—were farther upslope along the American River than the project vicinity. Two camps in the project vicinity are Gold Hill and Virginiatown, along Auburn Ravine approximately 5 miles south of the project area. Gold Hill, which was in the Ophir Mining District, was organized as a town in 1852. The community had a sizable population, as indicated by the 444 votes cast in the presidential election of that year (Hoover 1990). Virginiatown was founded in June 1851. The first railroad in California was built in 1852 by Captain John Brislow and was used to carry ore to Auburn Ravine (Hoover 1990, Gudde 1975). The town boasted a population of more than 2,000 by 1858, and a post office named Virginia was located there between 1858 and 1860. The county directory indicated that a lack of water prevented development until a ditch could be built from the Bear River in 1861. It was at Virginiatown that Philip Armour had his butcher shop, which is said to have been the nucleus of the great Armour meat packing business in Chicago (Gudde 1975). Another town, Whiskey Diggins southwest of the project area, appears to have been formed around 1855 (Foster and Foster 1994). In 1876, the community changed its name to Valley View, and after the turn of the century the community became a resort (named Kilaga Springs) because of the healthful mineral waters.

As easily mined deposits along perennial streams and rivers were rapidly depleted during the initial Gold Rush, a need arose to divert water to remote locations for placer mining. Several water conveyance systems were used to divert water. One system was the Whiskey Diggins Canal, which passes through the southern portion of the project area. The canal was constructed in the 1850s by the Gold Hill and Bear River Water Company to divert water from Deadman Creek, immediately east of the project area. The water conveyance system was subsequently sold to a Mr. Hall in 1861. After three changes in ownership during the 1870s, the South Yuba Water and Mining Company purchased the water conveyance system in May 1890. Pacific Gas and Electric Company purchased the entire South Yuba Water and Mining Company system, including the Whiskey Diggins Canal, in 1905, and in 1933 sold the canal to Nevada Irrigation District. By the late 19th century, the increase of new mining camps appearing in Placer County slowed considerably, and other economic pursuits, such as ranching and agriculture, became the backbone of the Placer County’s economy.

## RANCHING AND AGRICULTURE

Ranching and agriculture, which had once been support systems that provided food to the miners, grew to become dominant industries. As thousands of miners poured into the area during the early 1850s, farmers and ranchers put additional acreage into production to meet the demand for potatoes, flour, and various dairy products.

The first of such settlements in Placer County was Sicard's Ranch, a Mexican grant on the south bank of the Bear River, west of the project area. The grant was given to Theodore Sicard in 1844. Sicard, a French sailor, built an adobe house on the land in 1846, which later became a prominent stopping place for travelers on the way to Sutter's Fort in Sacramento. Sicard and fellow countryman Claude Chana, who had arrived at the ranch in late 1846, planted peach and almond trees, which became the start of the commercial orchard business in the Sacramento Valley. Chana later bought the Sicard grant, and sold the products of his orchard, vineyard, and vegetable garden to area miners (Hoover 1990).

Another locally notable agricultural figure was John A. Livingston, who planted fruit trees on approximately 300 acres north of Newcastle. Livingston controlled four ranches in the Auburn area and eventually served as secretary of the Placer County Land Company (Foster and Foster 1990).

The 1855 General Land Office (GLO) plat map depicts farms and agricultural land in the vicinity, but none are depicted within the project area. Land patent indices list John F. Hicken and John B. Hicken as the earliest known owners of land. Their property, acquired in 1884 and 1886, encompassed the northeast and northwest sections of Section 22 in Township 13 North, Range 7 East (land patent records 2625 and 3222).

John B. Hicken was born in Prussia in 1836. It is unclear when he and his wife Maria Eliza immigrated to the United States; however, they were in Wisconsin by 1859, which is where their son John F. Hicken was born. John B. Hicken is listed as a stock raiser in the 1900 Placer County census. The property he owned was then valued at \$2,000 (U.S. Census 1900).

The most recent owner of the Spears Ranch property was Bradley Spears, who held ownership of the property from 1985 to 2003. Before his ownership, the property was in foreclosure for approximately 10 years. Before the foreclosure the property was owned by a Mr. Art Wildberger, who purportedly ran a cattle ranch on the property from 1940 to 1975 (Spears, pers. comm., 2006). Today the land is owned by Placer County.

### 6.1.4 PREFIELD AND FIELD METHODOLOGY

Cultural resources investigations for the proposed project consisted of several elements: prefield research, review of previous cultural resources studies and historic maps, Native American consultation, field surveys, and documentation of resources. All aspects of the cultural resources study were conducted in accordance with guidelines outlined in the state Office of Historic Preservation's *Instructions for Recording Historical Resources* (OHP 1995) and the federal *Secretary of the Interior's Standards and Guidelines for the Identification of Cultural Resources* (48 *Federal Register* 44720–23) as amended on September 1983.

#### PREFIELD RESEARCH

To determine whether previously documented or unrecorded cultural resources are present within and immediately adjacent to the Spears Ranch portion of the Park and along Garden Bar Road, EDAW conducted background research. Research for the Didion Ranch portion of the Park was conducted as part of the 2004 Initial Study/Mitigated Negative Declaration (IS/MND) for the Didion property (Placer County 2004). Prefield research consisted of a records search at the North Central Information Center (NCIC) of the California Historical Resources Information System. Records maintained by the NCIC include California Department of Parks and Recreation Series 523 archaeological site records, site location maps, maps of previous study coverage, National



Register of Historic Places (NRHP) nomination forms, and relevant historical documentation and maps. The NCIC research also included a review of the following sources, all of which are on file at the information center:

- ▶ The NRHP, published by the National Park Service in 1996, as well as computer updates for 1966–September 2006
- ▶ The California Register of Historic Resources, published by the State of California in 2006
- ▶ *California Points of Historical Interest*, published by the State of California in 1992, as well as updates
- ▶ *Historic Spots in California*, published by the State of California in 1966
- ▶ *Directory of Properties in the Historical Resources Inventory*, published by the State of California in 1976, as well as updates
- ▶ The historic property data file (the Office of Historic Preservation’s current computer lists dated April 16, 2004, and December 13, 2007)
- ▶ *California Historical Landmarks*, published by the Office of Historic Preservation in 1990
- ▶ The GLO plat map for Township 13 North, Range 7 East
- ▶ The California Department of Transportation’s Historic Bridge Inventory (published in 1987, 2000, and 2004)
- ▶ U.S. Geological Survey historic maps (1885–87 Sacramento sheet and 1954 Gold Hill quadrangle)

## **HISTORIC MAPS**

A review of historic maps of the Spears Ranch portion of the Park and Garden Bar Road were conducted. The 1867 GLO plat map for Township 13 North, Range 7 East does not depict any structures or roads within the project area; however, several features are indicated in the surrounding area. An unnamed road is located in the southern half of Sections 21 and 22 to the south of the project area. The Myers house is depicted in the northwest corner of Section 31 and Sheridan/Auburn Road is shown in Sections 7 and 8, northwest of the project area. A survey map of the Heredia Estate prepared in 1889 depicts a feature with an illegible label in the southeast quarter of the southeast quarter of Section 16, and an unnamed road that bisects the eastern half of Section 16.

## **NATIVE AMERICAN CONSULTATION**

EDAW, on behalf of the County, initiated the consultation process with appropriate Native American groups with a possible interest in the cultural resources studies and the proposed project. EDAW contacted the Native American Heritage Commission (NAHC) in Sacramento and requested a list of suitable tribal organizations and individuals and a search of the NAHC Sacred Lands files. The Sacred Lands files search revealed that no known sites of cultural or spiritual importance to the present-day Native American community were known to exist within the area of potential effects for the proposed Park or Garden Bar Road improvements. The NAHC also provided contact information (Table 6-1) for the following groups and individuals from the Auburn area.

Letters were sent to each of the contacts noted in Table 6-1 before the field survey was conducted. One organization, the United Auburn Indian Community of the Auburn Rancheria, sent a letter expressing concern about Native American sites and remains that may be located in the project vicinity, and requesting a copy of this EIR. Although Section 106 does not apply to the EIR, it is required by the USACE as part of the processing of acquiring a Section 404 permit. In accordance with Section 106, consultation between Placer County and the United Auburn Community and its representatives is ongoing.

<b>Table 6-1</b> <b>Native American Contacts Provided by the Native American Heritage Commission</b>		
Individual	Address	Affiliation
Rose Enos	15310 Bancroft Road Auburn, CA 95603	Maidu/Washoe
Christopher Suehead	Todd Valley Miwok-Maidu Cultural Foundation P.O. Box 1490 Foresthill, CA 95631	Miwok/Maidu
Jessica Tavares, Chairperson	United Auburn Indian Community of the Auburn Rancheria 575 Menlo Drive, Suite 2 Rocklin, CA 95765	Maidu/Miwok
Jeff Murray or Nicholas Fonseca	Shingle Springs Band of Miwok Indians P.O. Box 1340 Shingle Springs, CA 95682	Maidu/Miwok
Source: Data provided by EDAW in 2006		

## 6.1.5 SURVEY RESULTS

EDAW cultural resource specialists conducted an intensive field survey of the Spears Ranch portion of the Park between October 16 and October 27, 2006, and Garden Bar Road on December 13, 2007. The Didion Ranch portion of the Park was surveyed as part of the 2004 IS/MND for the Didion property (Placer County 2004).

The majority of the sites and features identified during the EDAW cultural resources surveys (see Table 6-2) are related to, or likely related to, three distinct cultural phases or themes: prehistoric resource procurement, placer mining activities that were conducted from the middle of the 19th century until at least the early decades of the 20th century, and ranching activities that began at approximately the same time as mining activities and continued into the 21st century. Small-scale placer mining continues today in the vicinity of the Park, but it is avocational. No commercial ventures are operating in the area. Ranching and other agricultural endeavors are the continued staple industries of the area, and parts of the project area are still being used for cattle grazing. Resources identified during the EDAW cultural resources surveys are briefly described below.

## 6.1.6 PREHISTORIC FINDS

Nine prehistoric sites were identified during the survey. Of these, eight are milling features (e.g., mortars formed in bedrock or large boulders) and the ninth is a pitted boulder containing cupules. A description of these features is provided below.

### MILLING FEATURES

#### Cultural Resource HF-4: Bedrock Milling Feature

This cluster of eight mortars, formed within a horizontal exposure of volcanic bedrock, is located alongside Coon Creek, near the top of the falls (see Exhibit 3-4 for the location of the falls). The exposed bedrock measures about 36 feet (11 meters [m]) by 54 feet (16.5 m) and exhibits depressions formed by water and gravel tumbling. Eight of these depressions have been modified and exhibit attributes consistent with mortars formed in bedrock. Although there are no sediments on the downslope side of the feature, there is the potential for the presence of shallow cultural materials on the upslope side, adjacent to the feature.

**Table 6-2**  
**Cultural Resources Documented during the Cultural Resources Surveys**

Resource Number	Association	Description	Location (USGS Gold Hill Quad)		
			Township	Range	Section(s)
HF-1	Historic	Historic homestead	13N	7E	22
HF-2	Historic	Placer mining works	13N	7E	16
HF-3	Historic	Ranch site	13N	7E	21 and 22
HF-4	Prehistoric	Bedrock milling feature	13N	7E	22
HF-5	Prehistoric	Bedrock milling feature	13N	7E	22
HF-6	Prehistoric	Bedrock milling feature	13N	7E	16
HF-7	Historic	Concrete dam	13N	7E	16
HF-8	Prehistoric	Bedrock milling feature	13N	7E	22
HF-9	Historic	Whiskey Diggins Canal	13N	7E	21 and 22
HF-10	Historic	Small placer mining works	13N	7E	22
HF-11	Prehistoric	Bedrock milling feature	13N	7E	22
HF-12	Prehistoric	Bedrock milling feature	13N	7E	22
HF-13	Prehistoric	Bedrock milling feature	13N	7E	21
HF-14	Prehistoric	Bedrock milling feature	13N	7E	21
HF-15	Prehistoric	Cupule boulder	13N	7E	21
HF-16	Historic	Canals	13N	7E	21
HF-17	Historic	Placer mining remnant	13N	7E	16
HF-18	Historic	Isolated stove parts	13N	7E	22

Note: USGS = U.S. Geological Survey  
Source: Data provided by EDAW in 2006

### **Cultural Resource HF-5: Bedrock Milling Feature**

HF-5 is a collection of three milling features on horizontal exposure of bedrock. The site is situated at the base of a north-trending slope along Coon Creek. The bedrock exhibits naturally occurring depressions formed by fluvial processes. Several of these depressions have been modified by cultural use to form mortars. A total of 18 definitive mortars were identified, many of which were filled with leaves, rock, or soil. Because they were not excavated, complete descriptions and measurements were not made during the site visit. Individual milling features range from 4 inches to 10.6 inches (11–27 centimeters [cm]) in diameter and are up to 10 inches (25 cm) deep. Because of the location at the base of a slope, there is the potential for additional constituents to be present in shallow subsurface contexts immediately upslope of and adjacent to the feature.

### **Cultural Resource HF-6: Bedrock Milling Feature**

HF-6 is a cluster of six mortars formed on a horizontal exposure of volcanic bedrock alongside Coon Creek. The bedrock exhibits naturally occurring depressions formed by water wash and gravel tumbling. Six of these depressions have been modified and exhibit attributes consistent with mortars formed in bedrock. The mortars range in size from 4 inches to 10 inches (10–25 cm) in diameter and are 3 inches to 8 inches (8–20 cm) deep.

Although additional constituents were not observed, there is the potential for the presence of shallow subsurface cultural deposits adjacent to the milling feature.

#### **Cultural Resource HF-8: Bedrock Milling Feature**

HF-8 is a cluster of three mortars formed on a horizontal exposure of volcanic bedrock. This location is alongside Coon Creek, upstream of the steep canyon formed by the creek. The bedrock exposure measuring 7 feet by 5 feet (2 m x 1.5 m) contains three mortars, one of which was submerged within the creek at the time of the survey. The mortars range from 6 inches to 7.5 inches (16–19 cm) in diameter, and are roughly 4 inches (11 cm) deep. No sediments are located adjacent to the feature; therefore, subsurface deposits that may include additional artifact constituents are not believed to be present at this site.

#### **Cultural Resource HF-11: Bedrock Mortars**

HF-11 is a pair of mortars formed within a large volcanic boulder. The site is located on the southern bank of Coon Creek. The boulder exhibits naturally occurring depressions formed by water wash and gravel tumbling. Two of these shallow depressions have been modified and exhibit attributes consistent with mortars formed in bedrock. The mortars range from 9 inches to 12 inches (23–30 cm) in diameter and are 5 inches to 11 inches (12–27 cm) deep. There is a lack of depositional sediments adjacent to the boulder; therefore, subsurface deposits are most likely not present.

#### **Cultural Resource HF-12: Bedrock Milling Feature**

HF-12 is a cluster of five mortars formed in a horizontal exposure of volcanic bedrock, situated at the confluence of Coon Creek and Deadman Creek. The bedrock, measuring 23 feet by 4 feet (7 m x 1.2 m), exhibits naturally occurring depressions formed by water wash and gravel tumbling. Five of these depressions have been modified and exhibit attributes consistent with mortars formed in bedrock. The mortars are all conical in shape and range between 5 inches and 8 inches (12–20 cm) in diameter and 2 inches to 6 inches (4–16 cm) deep. The feature is situated directly adjacent to Coon Creek and lacks associated depositional sediments; therefore, subsurface cultural materials are not believed to be present.

#### **Cultural Resource HF-13: Bedrock Mortars**

HF-13 consists of two mortars formed within a large volcanic boulder. The site is located on the northern bank of Coon Creek, approximately 400 feet (125 m) from the main creek crossing and the intersection of three main access roads. The boulder exhibits three depressions formed by water. Two of these have been modified and exhibit attributes consistent with mortars formed in bedrock. The mortars range in size between 6 inches and 8 inches (16–20 cm) in diameter and are 2 inches to 3 inches (4–7 cm) deep. Because the dense vegetation in this area prevents a thorough investigation of the adjacent surface, there is the potential for the presence of shallow subsurface cultural materials directly adjacent to the feature.

#### **Cultural Resource HF-14: Single Bedrock Mortar**

HF-14 is a single mortar located within a horizontal exposure of volcanic bedrock. This cone-shaped mortar is 9 inches by 6.5 inches by 5 inches (24 cm x 16.5 cm x 12 cm).

### **ADDITIONAL PREHISTORIC RESOURCE**

#### **Cultural Resource HF-15: Cupule Boulder**

HF-15 is a pitted boulder containing 13 cupules. Each cupule is round and slightly dished, measuring 0.4 inches to 2 inches (1–5 cm) in diameter and 0.2 inch to 0.4 inch (0.5–1 cm) deep. The feature is located alongside Coon Creek, directly adjacent to two historic canals (cultural resource HF-16, described below). Payen (1966) described

a similar feature at the Lincoln Mound site (CA-PLA-14) southwest of the Park. Investigations at Placer Ranch, about 5 miles north of Roseville and 10 miles southwest of the project area, resulted in the location of several pitted boulders, one of which (CA-PLA-627H) exhibited 40 small cupules (Foster et al. 1976).

Although previous investigations and research in the project vicinity have noted the presence of pitted boulders, and other research has documented their presence in the Coast Range west of Fresno, on the west side of the Sierra Nevada in Plumas County, and elsewhere in Northern California, they are far from ubiquitous. Some researchers (e.g., Payen 1966) suggest that these features are a type of rock art associated with earlier time periods and are associated with the Great Basin rock art tradition. Where they are located on horizontal exposures, some have referred to these features as “rain” rocks, used by shamans who would cover and then uncover them during rain-invoking rituals. Cupules found in the southern Sierra Nevada are interpreted as being made by young women during their puberty initiations (Whitley 2000, 2001). Because of their uniqueness and the potential association with spiritual rituals, the feature is considered a unique archaeological resource and eligible for inclusion in the CRHR under criterion 4 (see Section 6.2.2, “State Plans, Policies, Regulations, and Laws,” below).

No other cultural constituents were observed in association with this prehistoric feature. Because of its location adjacent to a canal, it is possible that this boulder was moved from its original location during the construction of the canal.

## **6.1.7 HISTORIC-ERA FINDS**

Nine historic-era sites were identified during the survey. Of these, three consist of resources related to early settlement and ranching, four are related to the history of mining and prospecting in the area, and one is a historic water conveyance system. These features are described below.

### **EARLY SETTLEMENT— AND RANCHING-RELATED RESOURCES**

#### **Cultural Resource HF-1: Historic Homestead**

HF-1 is located near the falls at the confluence of Deadman and Coon Creeks, along the edge of a trail that originates from the Didion Ranch portion of the Park. The site, consisting of three features, appears to be the remains of an early homestead, possibly associated with the occupation of John F. and John B. Hicken in 1884, or an earlier short-term residence associated with Gold Rush-era mining and prospecting. Of the three features documented on the site, feature 1 is a rock chimney structure; feature 2 is a reinforced earthen pad (possibly a tent or structure platform); and feature 3 is a small trench or canal, with several associated pieces of milled lumber (one of which is driven into the creek bank). Although no associated artifacts were observed, dense vegetation may be obscuring additional constituents.

#### **Cultural Resource HF-3: Ranch Site**

This ranch site encompasses more than 300 acres near the Park’s southwestern corner. The constituents at this site consist of a house foundation (feature 1) with associated refuse, a water conveyance system (feature 2) with associated stock ponds, an earthen pad (feature 3), a group of rock cairns (feature 4), and four buildings (two residences and two sheds), and a dilapidated chicken coop and corral situated within an improved pasture area. The property also contains what appears to be a collapsed chicken coop composed of wooden posts and wire mesh and a dilapidated wooden corral.

#### **Cultural Resource HF-18: Isolated Stove Parts**

This isolated non-associated find is a collection of six cast iron stove fragments. A door fragment has an embossed maker’s mark.

## **MINING- AND PROSPECTING-RELATED RESOURCES**

### **Cultural Resource HF-2: Placer Mining Works**

HF-2 is the remnants of a placer mining and prospecting operation. The site contains two loci that incorporate various archaeological remains. The features at locus 1 consist of a collection of five prospect pits, approximately 30 rock piles, and three trenches. The features contained in locus 2 of the site seem to be associated more with prospecting activities and consist of several pits, trenches, their associated back dirt piles, and four widely distributed artifacts.

### **Cultural Resource HF-7: Concrete Dam**

This site consists of a concrete dam formed onto a bedrock exposure, an excavated diversion canal consisting of segments that have been excavated into bedrock, and other segments that are lined with concrete. The concrete dam (feature 1) is located on the northern bank of Coon Creek, approximately 2,800 feet from the western boundary of the Park. At one time, this feature diverted water into a diversion channel (feature 2) that parallels Coon Creek. Two artifacts were located within and near feature 1—a horseshoe that is cemented to the natural rock outcrop above the dam wall, and a metal frame located downstream of the dam. The metal piece appears to be a frame for the gate that was once in place in the diversion channel. The dates “1922” and “1936” appear within a square concrete inscription tablet placed at the center of the main wall of the dam. The concrete used in dam construction appears to be similar to that used in the structural remains associated with ranching site HF-3, suggesting that the features at these two sites may have been built at the same time or by the same individual. The previous owner of the property, Bradley Spears, indicated that Art Wildberger operated a cattle ranch on the property from 1940 to 1975 (Spears, pers. comm., 2006). Therefore, the dam and residence at HF-3 are most likely associated with an unknown previous owner who predates ownership by Wildberger.

### **Cultural Resource HF-10: Small Placer Mining Works**

HF-10 is a small placer mining locale situated near the base of a south-facing slope, approximately 65 feet north and upslope of Coon Creek. The three features observed at this location consist of a trench (feature 1), a circular pit (feature 2) with stacked cobbles, and a collection of at least five rock piles (feature 3). Dense grass prevents the full description of all the features, and artifacts and additional features may be present. However, given the limited areal extent of the mining operation, it appears to have been one of short duration, possibly occurring during the 1850s to 1870s or during the Great Depression.

### **Cultural Resource HF-16: Canals**

HF-16 consists of two parallel canals (canals 2 and 3) that extend for a distance of approximately 350 feet. Canal 2 is rock lined and is situated just upslope of Coon Creek. Canal 3 is excavated into bedrock.

### **Cultural Resource HF-17: Placer Mining Remnant**

HF-17 is a stacked rock pile that appears to be a remnant of placer mining operations. The feature consists of three courses of 40–50 stacked cobbles and boulders. The remnant of a ditch/canal with a prominent berm on the downslope side extends along the south side of Coon Creek for an undetermined distance. No artifacts or other associated constituents were observed.

## **WATER CONVEYANCE SYSTEM**

### **Cultural Resource HF-9: Whiskey Diggins Canal**

Three segments of the Whiskey Diggins Canal are located within the Spears Ranch portion of the Park. Portions of the canal located immediately south of the current Park were formally recorded by Foster and Foster (1994).

The first ditch segment within the project area enters the property at the southeast boundary near the midpoint of the eastern section line of Section 22. It exits and then reenters the Spears Ranch portion of the Park on the eastern side of the midpoint of the section, then exits again on the west side of Section 22. The final segment documented here as part of HF-3 is a small, curving segment that is found near the middle of the western boundary of Section 22. The ditch appears as it is described by Foster and Foster (1994), with the exception of several segments that are lined with black mesh, improvements related to ongoing maintenance by Nevada Irrigation District. The overall depth is approximately 2 feet (0.6 m) and the width is approximately 6 feet (1.8 m). A maintenance road parallels the canal on the downslope side.

## **6.2 REGULATORY SETTING**

### **6.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS**

#### **SECTION 106 NATIONAL HISTORIC PRESERVATION ACT**

As part of the process involved in acquiring a Section 404 from the Corps compliance with Section 106 of the National Historic Preservation Act is required. Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations (Title 36, Section 800 of the Code of Federal Regulations [i.e., 36 CFR 800], as amended in 1999) requires federal agencies to consider the effects of their actions, or those they fund or permit, on properties that may be eligible for listing or are listed in the NRHP.

The NRHP is a register of districts, sites, buildings, structures, and objects of significance in American history, architecture, archaeology, engineering, and culture. The regulations provided in 36 CFR 60.4 describe the criteria used to evaluate cultural resources for inclusion in the NRHP. Cultural resources can be significant on the national, state, or local level. Properties may be listed in the NRHP if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- (a) are associated with events that have made a significant contribution to the broad patterns of our history;
- (b) are associated with the lives of persons significant in our past;
- (c) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) have yielded, or may be likely to yield, information important in prehistory or history.

To determine whether an undertaking could affect historic properties, cultural resources (archaeological, historical, and architectural properties) must be identified, inventoried, and evaluated for listing in the NRHP. Although compliance with Section 106 is the responsibility of the lead federal agency, the work necessary to comply can be undertaken by others. The Section 106 review process involves a four-step procedure:

- ▶ Initiate the Section 106 process by establishing the undertaking, developing a plan for public involvement, and identifying other consulting parties.
- ▶ Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.
- ▶ Assess adverse effects by applying the criteria of adverse effect on historic properties (resources that are eligible for inclusion in the NRHP).

- Resolve adverse effects by consulting with the State Historic Preservation Officer and other consulting agencies, including the Advisory Council on Historic Preservation if necessary, to develop an agreement that addresses the treatment of historic properties.

## **6.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS**

The California Environmental Quality Act (CEQA) provides for the documentation and protection of significant prehistoric and historic resources. Before a discretionary project is approved, the potential impacts of the project on archaeological and historical resources must be considered (Public Resources Code [PRC] Sections 21083.2 and 21084.1, State CEQA Guidelines Section 15064.5 [California Code of Regulations (CCR) Section 15064.5]).

A variety of cultural resources can be determined to be historical resources under CEQA, including traces of prehistoric habitation and activities and historic-era sites and materials. In general, traces of human activity more than 50 years old are typically treated as a potential cultural resource. However, because projects can extend over a period of years from planning to implementation, the minimum age generally used in practice for resources to be considered for possible historic qualities is 45 years.

Prehistoric and historic cultural resources in the Spears Ranch portion of the Park may be eligible for inclusion in the CRHR. Listing, or eligibility for listing, in the CRHR is the primary consideration in whether or not a resource is subjected to further research and documentation. CEQA states that if a project would result in significant impacts on important historical resources, then alternative plans or mitigation measures must be considered. However, only significant historical resources need to be addressed. CEQA Section 5024.1 (PRC Section 5024.1) and Section 15064.5 of the State CEQA Guidelines (CCR Section 15064.5) include listing or eligibility for listing on the California Register of Historical Resources in the definition of a significant historical resource.

A cultural resource may be eligible for listing in the CRHR if it:

- (1) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- (2) is associated with the lives of persons important in our past;
- (3) embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual or possesses high artistic values; or
- (4) has yielded, or may be likely to yield, information important in prehistory or history.

If a prehistoric or historic resource does not necessarily meet any of the four CRHR criteria, but does meet the definition of a "unique" archeological resource as outlined in PRC Section 21083.2, it may still be treated as a significant resource. A "unique" archaeological resource is defined as:

...an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.



As a matter of policy, public agencies should avoid damaging effects on historic and archaeological resources, particularly those that are eligible for the CRHR. When impacts cannot be avoided, their effects can be mitigated through:

- ▶ avoiding resources during construction phases,
- ▶ incorporating sites into open space,
- ▶ capping resources with chemically neutral stable fill,
- ▶ deeding a site into a permanent conservation easement, or
- ▶ recovering data about the site (testing and excavation).

The State CEQA Guidelines also provide for a measure of protection for Native American human remains (CCR Section 15064.5[d]) and for the accidental discovery of cultural resources (CCR Section 15064.5[e]). These are particularly important provisions in that they take into account the possibility that significant resources not noted as a result of previous research efforts may be present within a project area and need to be treated in a way commensurate with CEQA standards. Section 15064.5(e) of the State CEQA Guidelines (i.e., CCR Section 15064.5[e]) requires that excavation activities be stopped whenever human remains are uncovered, and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of a Native American, the NAHC must be contacted within 24 hours, and the provisions for treating or disposing of the remains and any associated grave goods as described in CCR Section 15064.5 must be followed.

### 6.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND LAWS

The following are the relevant goal and policies identified by the *Placer County General Plan* (Placer County 1994) for cultural resources.

**GOAL 5.D:** To identify, protect, and enhance Placer County's important historical, archaeological, paleontological, and cultural sites and their contributing environment.

- ▶ **Policy 5.D.1.** The County shall assist the citizens of Placer County in becoming active guardians of their community's cultural resources.
- ▶ **Policy 5.D.2.** The County shall solicit the cooperation of the owners of cultural and paleontological resources, encourage those owners to treat these resources as assets rather than liabilities, and encourage the support of the general public for the preservation and enhancement of these resources.
- ▶ **Policy 5.D.3.** The County shall solicit the views of the Native American Heritage Commission and/or the local Native American community in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.
- ▶ **Policy 5.D.4.** The County shall coordinate with the cities and municipal advisory councils in the County to promote the preservation and maintenance of Placer County's paleontological and archaeological resources.
- ▶ **Policy 5.D.5.** The County shall use, where feasible, incentive programs to assist private property owners in preserving and enhancing cultural resources.
- ▶ **Policy 5.D.6.** The County shall require that discretionary development projects identify and protect from damage, destruction, and abuse, important historical, archaeological, paleontological, and cultural sites and their contributing environment. Such assessments shall be incorporated into a County-wide cultural resource data base, to be maintained by the Department of Museums.
- ▶ **Policy 5.D.7.** The County shall require that discretionary development projects be designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts,

whenever possible, shall be reduced to a less-than-significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance, and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical, or paleontological consultants, depending on the type of resource in question.

- ▶ **Policy 5.D.8.** The County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.
- ▶ **Policy 5.D.9.** The County shall use the State Historic Building Code to encourage the preservation of historic structures.
- ▶ **Policy 5.D.10.** The County will use existing legislation and propose local legislation for the identification and protection of cultural resources and their contributing environment.
- ▶ **Policy 5.D.11.** The County shall support the registration of cultural resources in appropriate landmark designations (i.e., National Register of Historic Places, California Historical Landmarks, Points of Historical Interest, or Local Landmark). The County shall assist private citizens seeking these designations for their property.
- ▶ **Policy 5.D.12.** The County shall consider acquisition programs as a means of preserving significant cultural resources that are not suitable for private development. Organizations that could provide assistance in this area include, but are not limited to, the Archaeological Conservancy, The Nature Conservancy, and the Placer Land Trust.

## 6.3 IMPACTS

### 6.3.1 ANALYSIS METHODOLOGY

#### SUMMARY OF METHODOLOGY

As described above in Section 6.1.4, “Prefield and Field Methodology,” cultural resources investigations for the Spears Ranch portion of the Park and Garden Bar Road consisted of a staged approach that included prefield research, review of previous cultural resources studies and historic maps, Native American consultation, field surveys, and documentation of resources. Resources were assessed for their potential for eligibility for inclusion in the NRHP and CRHR. All aspects of the cultural resources study were conducted in accordance with the *Secretary of the Interior’s Guidelines for the Treatment of Historic Properties*, and documented according to the guidelines outlined in *Instructions for Recording Historical Resources* (OHP 1995).

#### RESOURCE ELIGIBILITY

One of the most important considerations in determining the potential consequences of the proposed project on documented cultural resources is the level of significance each site or feature possesses when measured against the NRHP and CRHR criteria (see Section 6.2, “Regulatory Setting,” above). The potential for eligibility of each documented resource within the project area and in the vicinity is summarized below in Table 6-3. Additional work may be required to complete the eligibility or mitigate for impacts if the project cannot be redesigned to avoid direct or indirect impacts.

**Table 6-3  
Preliminary NRHP/CRHR Resource Eligibility**

Resource Number	Association	Resource Type	NRHP and CRHR Eligibility
HF-1	Historic	Historic homestead	Not eligible under NRHP criteria (a)–(c) or CRHR criteria 1–3; potentially eligible under NRHP criterion (d) and CRHR criterion 4
HF-2	Historic	Placer mining works	Not eligible
HF-3	Historic	Ranch site	Not eligible
HF-4	Prehistoric	Bedrock milling feature	Not eligible under NRHP criteria (a)–(c) or CRHR criteria 1–3; potentially eligible under NRHP criterion (d) and CRHR criterion 4
HF-5	Prehistoric	Bedrock milling feature	Not eligible under NRHP criteria (a)–(c) or CRHR criteria 1–3; potentially eligible under NRHP criterion (d) and CRHR criterion 4
HF-6	Prehistoric	Bedrock milling feature	Not eligible under NRHP criteria a–c or CRHR criteria 1–3; potentially eligible under NRHP criterion d and CRHR criterion 4
HF-7	Historic	Concrete dam	Not eligible
HF-8	Prehistoric	Bedrock milling feature	Not eligible under NRHP criteria a–c or CRHR criteria 1–3; potentially eligible under NRHP criterion d and CRHR criterion 4
HF-9	Historic	Whiskey Diggins Canal	Not eligible
HF-10	Historic	Small placer mining works	Not eligible
HF-11	Prehistoric	Bedrock milling feature	Not eligible under NRHP criteria a–c or CRHR Criteria 1–3; potentially eligible under NRHP criterion d and CRHR criterion 4
HF-12	Prehistoric	Bedrock milling feature	Not eligible under NRHP criteria a–c or CRHR criteria 1–3; potentially eligible under NRHP criterion d and CRHR criterion 4
HF-13	Prehistoric	Bedrock milling feature	Not eligible under NRHP criteria a–c or CRHR criteria 1–3; potentially eligible under NRHP criterion d and CRHR criterion 4
HF-14	Prehistoric	Bedrock milling feature	Not eligible under NRHP criteria a–c or CRHR criteria 1–3; potentially eligible under NRHP criterion d and CRHR criterion 4
HF-15	Prehistoric	Cupule boulder	Not eligible under NRHP criteria a–c or CRHR criteria 1–3; eligible under NRHP criterion d and CRHR criterion 4
HF-16	Historic	Canals	Not eligible
HF-17	Historic	Placer mining remnant	Not eligible
HF-18	Historic	Isolated stove parts	Not eligible

Source: Data compiled by EDAW in 2006

Of the nine prehistoric sites, eight are milling features, and one is a boulder with small cupules. Three of these milling features (HF-8, HF-12, and HF-14) lack associated sediments or deposits that have the potential to contain additional archaeological deposits. However, ethnographic data supplied elsewhere indicate that ethnographic studies may supply additional information on the formation and composition of work groups and on the types of resources and the methods of processing that occurred at each of these locations. The remaining five milling features (HF-4, HF-5, HF-6, HF-11, and HF-13) are in locations containing sediments. The results of archaeological testing elsewhere indicate that these features have the potential to possess associated subsurface cultural constituents that can yield data addressing one or more of the research issues established for this project. Therefore, because of their data potential, all of these sites are recommended as potentially eligible for inclusion in the NRHP and CRHR. The remaining site is the boulder with associated cupules (HF-15). Because of the uniqueness and the potential association with spiritual rituals, the feature is considered a unique archaeological resource and eligible for inclusion in the NRHP under criterion d and the CRHR under criterion 4.

Of the nine historic-era resources, an isolated stove (HF-18) is not considered significant because of a lack of association. The Whiskey Diggins Canal (HF-9) lacks integrity, unique features, association, and archaeological deposits that would qualify it as eligible for the NRHP or CRHR. Similarly, the ranch site (HF-3) lacks integrity, associations, or architecturally unique elements that would qualify for inclusion in the NRHP or CRHR. Of the placer mining/prospecting-related sites (HF-2, HF-7, HF-10, HF-16, and HF-17), none appear to be specific to a particular era. All display various impacts on their integrity and lack associated archaeological deposits, precluding them from being associated with a particular era or event. Therefore, none are considered eligible for the NRHP or CRHR. Although a suspected historic homestead (HF-1) does not appear to qualify for eligibility under NRHP criteria a–c or CRHR criteria 1–3, because of dense vegetation there is the potential for surface and subsurface archaeological deposits that may further an understanding of life ways on early homesteads of the region. Therefore, pending further investigations, including subsurface testing, the site is recommended as potentially eligible for inclusion in the NRHP under criterion d and the CRHR under criterion 4.

### 6.3.2 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and Appendix G of the State CEQA Guidelines, the proposed project would result in a potentially significant impact on cultural resources if it would:

- ▶ cause a substantial adverse change in the significance of a unique archaeological resource or a historical resource as defined in Section 21083.2 of CEQA and Section 15064.5 of the State CEQA Guidelines, respectively; or
- ▶ disturb any human remains, including those interred outside of formal cemeteries.

Section 15064.5 of the State CEQA Guidelines defines “substantial adverse change” as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings.

### 6.3.3 IMPACT ANALYSIS

IMPACT 6-1	Cultural Resources—Potential for Loss of or Damage to Potentially Significant Cultural Resources. <i>Nine potentially significant cultural resources and one significant cultural resource have been documented within the Spears Ranch portion of the Park. The proposed project has the potential to damage or destroy these cultural resources, either directly by construction or by increased public use.</i>
Significance	<i>Potentially Significant</i>

**Mitigation Proposed**    *Mitigation Measure 6-1: Modify Project Plans to Avoid Potentially Significant Cultural Resources and Actively Monitor Resources for Indirect Effects*

**Residual Significance**    *Less than Significant*

Of the nine potentially significant cultural resources and one significant archaeological resource, an existing trail crosses one historic site (HF-1), and no project-related activities would disturb potentially significant archaeological deposits that may be associated with this resource. Adverse effects on the prehistoric sites considered potentially eligible for the NRHP under criterion d and for the CRHR under criterion 4 because of the potential presence of subsurface deposits (HF-4, HF-5, HF-6, HF-11, and HF-13) would be avoided through modifications of project design and implementation. Similarly, the bedrock milling features considered potentially eligible because of the potential for information that could be derived from further ethnographic research (HF-8, HF-12, and HF-14) would be avoided during project design and implementation. Trails and other project facilities that would involve ground disturbance would be designed to avoid each of these sites.

Increasing public recreation use of the project area would create a risk of indirect damage to potentially significant or significant cultural resources. Cultural resources sites can be subject to vandalism or other damage by Park users. As part of the County’s plans for management of the Park, monitoring of potential indirect impacts on sites that could occur as a result of public use of the Park would be conducted by the County or members of the local Native American community, or both. If indirect impacts from visitor use were to be considered a threat to resource values, protective barriers would be installed to avoid or minimize these impacts.

HF-15, a cupule boulder, appears to have been displaced from its original location. However, this resource represents unique values associated with potential spiritual use and is of considerable interest to the local Native American community. Consultation between the County and the local Native American community regarding this resource is ongoing. Because the boulder no longer appears to be located in its original context, relocation to a site suitable to the Native American community is not considered an adverse effect.

For the reasons described above for resources HF-4, HF-5, HF-6, HF-11, and HF-13 and resources HF-8, HF-12, and HF 14, this impact would be potentially significant. Implementation of Mitigation Measure 6-1 would reduce this impact to a less-than-significant level.

**IMPACT 6-2**    **Cultural Resources—Potential for Disturbance of Undiscovered Cultural Resources.** *The project vicinity is known to contain numerous historic and prehistoric resources. In addition, buried traces of historic-era activity and early Native American occupation that remain undocumented may be present within and in the vicinity of proposed trails. Ground-disturbing activities during construction of trails and Park facilities could disturb undiscovered cultural resources.*

**Significance**    *Potentially Significant*

**Mitigation Proposed**    *Mitigation Measure 6-2: Protect Previously Unknown Cultural Resources*

**Residual Significance**    *Less than Significant*

Although the entire Spears Ranch portion of the Park and Garden Bar Road were subject to an intensive archaeological inventory, and methods of identifying resources located on and above the ground surface were used, it is possible that presently unidentified cultural deposits are present in subsurface contexts. Subsurface prehistoric resources may take the form of stone tools and tool fragments, rock concentrations, burned and/or unburned shell or bone, and/or darkened sediments containing some of the above-mentioned constituents. Historic-era deposits can include fragments of glass, ceramic, and metal objects; milled and split lumber; and

structure and feature remains, such as building foundations and dumps. Because the potential exists for disturbing undiscovered cultural resources, this impact would be potentially significant. Implementation of Mitigation Measure 6-2 would reduce this impact to a less-than-significant level.

**IMPACT 6-3**      **Cultural Resources—Potential for Disturbance of Unknown Human Interments.** *Although no evidence of human interments was found in documentary research or during the archaeological inventory evidence of prehistoric and historic use of the project area has been found. If undiscovered human remains are present, ground-disturbing activities during construction of trails and other Park facilities could adversely affect presently unmarked human interments.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 6-3: Stop Potentially Damaging Work if Human Remains are Uncovered During Construction*

**Residual Significance**      *Less than Significant*

The entire Spears Ranch portion of the Park and Garden Bar Road were subject to an intensive archaeological inventory, and the project vicinity is known to contain numerous historic and prehistoric resources. No evidence of human remains was found within or near the project area through a review of documentary research and completion of an archaeological inventory; however, potentially unmarked Native American or historic-era human interments could be present, because evidence of prehistoric and historic use of the project area has been found. Undiscovered human interments could be encountered during project-related ground-disturbing activities. Because unknown or undocumented subsurface human remains could be uncovered during construction of trails or Park facilities, this impact would be potentially significant. Implementation of Mitigation Measure 6-3 would reduce this to a less-than-significant level.

## 6.4 MITIGATION MEASURES

**Mitigation Measure 6-1: Modify Project Plans to Avoid Potentially Significant Cultural Resources and Actively Monitor Resources for Indirect Effects.**

*Mitigation Measure 6-1 applies to Impact 6-1.*

The County will prepare detailed design of trails, roads, and other Park facilities to ensure that direct effects associated with project implementation avoids all significant and potentially significant documented cultural resources in the project area. As part of the County’s ongoing operational responsibility, usage trends that threaten any potentially significant documented cultural resources will be actively managed to avoid damage. If designing such trails and facilities to avoid potential impacts is not feasible or if management of Park usage indicates potential impacts to significant or potentially significant cultural resources, an approved treatment plan shall be drafted and implemented to mitigate the significant impacts. Such a plan may include one or more of the following elements:

- ▶ vegetation removal and surface inspection;
- ▶ ethnographic studies or Native American consultation, or both;
- ▶ subsurface testing; and
- ▶ if necessary, data recovery.

Implementation of this mitigation measure would reduce Impact 6-1 to a less-than-significant level.

**Mitigation Measure 6-2: Protect Previously Unknown Cultural Resources.**

*Mitigation Measure 6-2 applies to Impact 6-2.*

Given the potential for subsurface deposits, if undocumented resources are encountered during construction, all destructive work in the vicinity of the find shall cease until a qualified professional archaeologist can assess the significance of the find and, if appropriate, provide recommendations for treatment. Appropriate measures for treatment may include no action, avoidance of the resource through relocation of Park facilities, subsurface testing, and potentially data recovery. For any such discovery, a memorandum documenting the results of the evaluation shall be provided to the County by the archaeologist, and the County shall forward the memorandum to the California Department of Parks and Recreation and the State Historic Preservation Officer.

Implementation of this mitigation measure would reduce Impact 6-2 to a less-than-significant level.

### **Mitigation Measure 6-3: Stop Potentially Damaging Work if Human Remains are Uncovered during Construction.**

*Mitigation Measure 6-3 applies to Impact 6-3.*

In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, the construction contractor or the County, or both, shall immediately halt potentially damaging excavation in the area of the burial and notify the County coroner and a qualified professional archaeologist to determine the nature of the remains. The coroner shall examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands, in accordance with Section 7050(b) of the Health and Safety Code. If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050(c)). After the coroner's findings are presented, the County, the archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed.

Upon the discovery of Native American remains, the procedures above regarding involvement of the County coroner, notification of the NAHC, and identification of a MLD shall be followed. The County shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours after being granted access to the site to complete a site inspection and make recommendations. A range of possible treatments for the remains may be discussed: nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment. Assembly Bill (AB) 2641 (Chapter 863, Statutes of 2006) suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641 includes a list of site protection measures and states that the County shall comply with one or more of the following measures:

- ▶ Record the site with the NAHC or the appropriate Information Center.
- ▶ Utilize an open-space or conservation zoning designation or easement.
- ▶ Record a document with the county in which the property is located.

The County or its authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The County or its authorized representative may also reinter the remains in a location not subject to further disturbance if it rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner. Adherence to these procedures and other provisions of the California Health and Safety Code and AB 2641 would reduce potential impacts on human remains to a less-than-significant level.

## **7.0 VISUAL RESOURCES**

This chapter describes the existing visual characteristics of the project area and evaluates the visual impacts of the proposed project. The visual impact analysis considers existing scenic resources and the potential visibility of the proposed project from surrounding areas, including both the physical characteristics of project facilities and changes in light and glare in the project area. The descriptions of the existing visual setting are accompanied by photographs of representative views, taken during a site visit on July 28, 2007.

### **7.1 ENVIRONMENTAL SETTING**

#### **7.1.1 REGIONAL AND LOCAL VISUAL CHARACTER**

##### **VISUAL CHARACTER OF THE PROJECT AREA**

The project area is located in the Sierra Nevada foothills of western Placer County (Exhibits 3-2 and 3-3 in Chapter 3.0, “Project Description”). The project area is mostly undeveloped consisting primarily of oak woodland and chaparral vegetation, although several residences are located along Garden Bar Road and, in general, to the west and south of the Park. Additionally, an existing residence and ranch-related structures (e.g., storage building, corral) are located in the central portion of the project area. Coon and Deadman Creeks transect the project area. Garden Bar Road is the closest roadway to the project area; however, the Park is not visible from Garden Bar Road because of intervening vegetation and topography. The portion of the project that includes improvements to Garden Bar Road would be visible to many of the residences along this road. Ridgelines of the surrounding foothills dominate views from within the project area and are the nearest visually prominent landforms (Exhibits 7-1a and 7-1b).

##### **VISUAL CHARACTER OF THE SURROUNDING AREA**

The project area is located in a rural area approximately 5 miles northwest of Auburn. The project vicinity is highly vegetated and consists of rolling terrain. Although some of the surrounding areas are developed with rural residences, only one house is visible from within the facility development zone inside the Park, approximately 1,600 feet to the west, with views from the house’s location on top of a ridge (see Exhibit 7-2 and KOP 2 in Exhibit 7-3). Surrounding views include undulating topography and vegetation common in the foothills including pockets of chaparral, oak woodlands, and grasslands with extended views into and around Coon Creek.

#### **7.1.2 VISIBILITY FROM THE SURROUNDING AREA**

Key observation points (KOPs) are the primary focus of the visual analysis. KOPs are generally selected to represent the most critical locations from which a project area may be seen. KOPs are used to evaluate existing landscapes and potential impacts on visual resources with various levels of sensitivity, in different landscape types and terrain, and from various vantage points. The KOP images were developed using Google Earth Pro 2008 utilizing topography and satellite imagery.

The Park is not readily visible from any prominent off-site locations (e.g., Garden Bar Road, rural residences) and only one potential KOP (i.e., the house located on top of the ridge approximately 1,600 feet to the west) was identified as having potential views of proposed project facilities. The project lacks additional KOPs with views of proposed facilities because the project area is secluded, heavily vegetated, and protected from views from the outside by surrounding topography. For the analysis of potential visual impacts associated with the proposed project, 11 KOPs were selected (Exhibits 7-4 through 7-14) as public or private vantage points from which the project area would be potentially visible by residents or users. Refer to Exhibit 7-3 for specific locations of KOPs in relation to the project area. The surrounding landscape is primarily open grazing land, rural residential, or oak woodland.





Source: Photograph provided by EDAW in 2007

**View of Surrounding Areas to the West from the Existing Ranch House**

**Exhibit 7-1a**



Source: Photograph provided by EDAW in 2007

**View of Surrounding Areas to the South from the Existing Ranch House**

**Exhibit 7-1b**

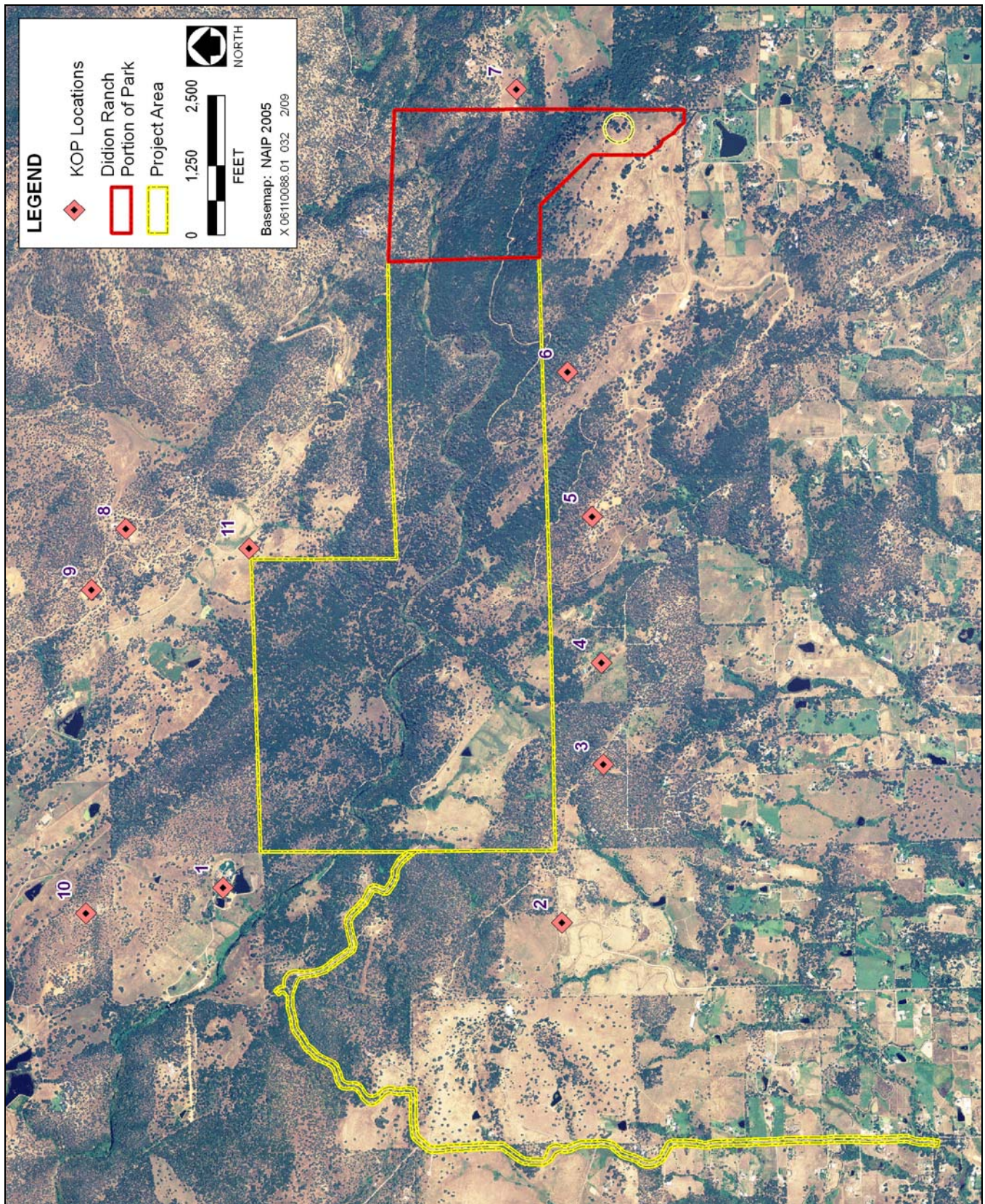


Source: Photograph provided by EDAW in 2007

**Nearby Ridgetop Home with Views into the Project Area**

**Exhibit 7-2**



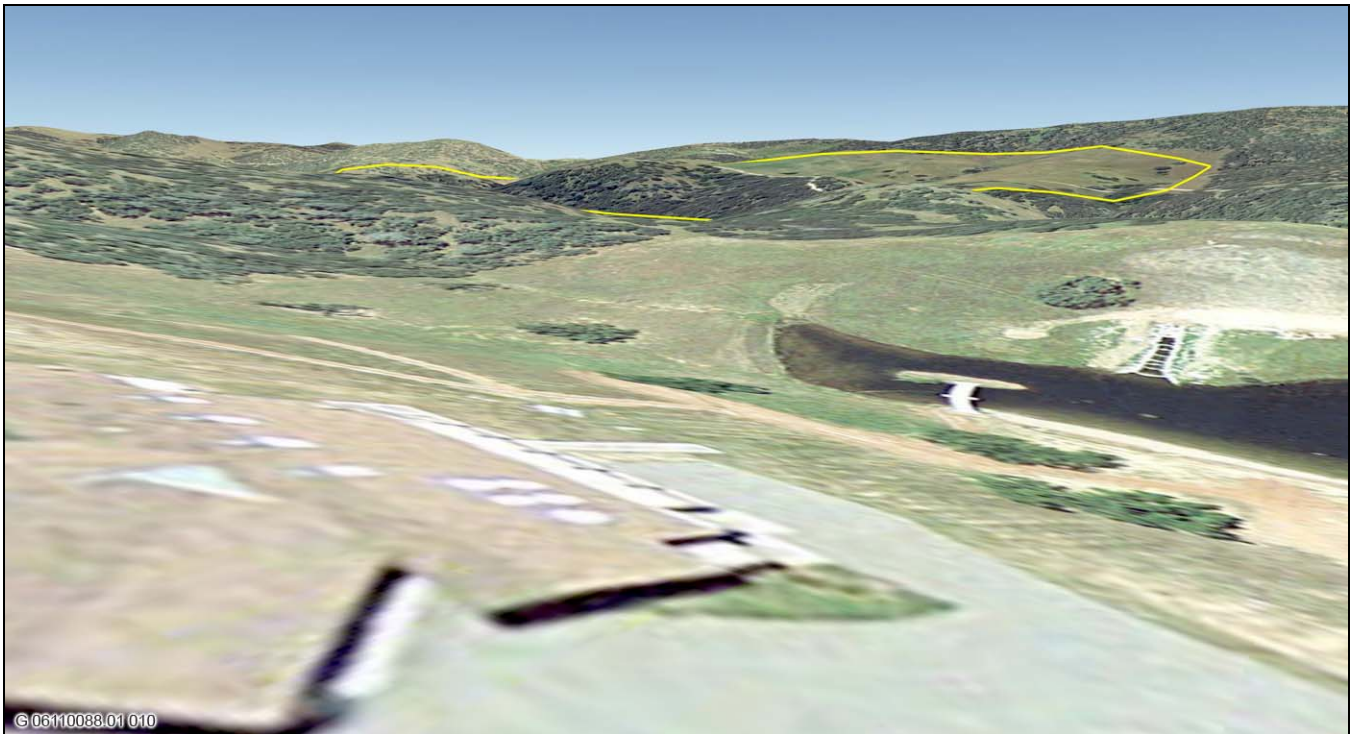


Source: Data provided by EDAW in 2008

### Key Observation Points Location Map

### Exhibit 7-3

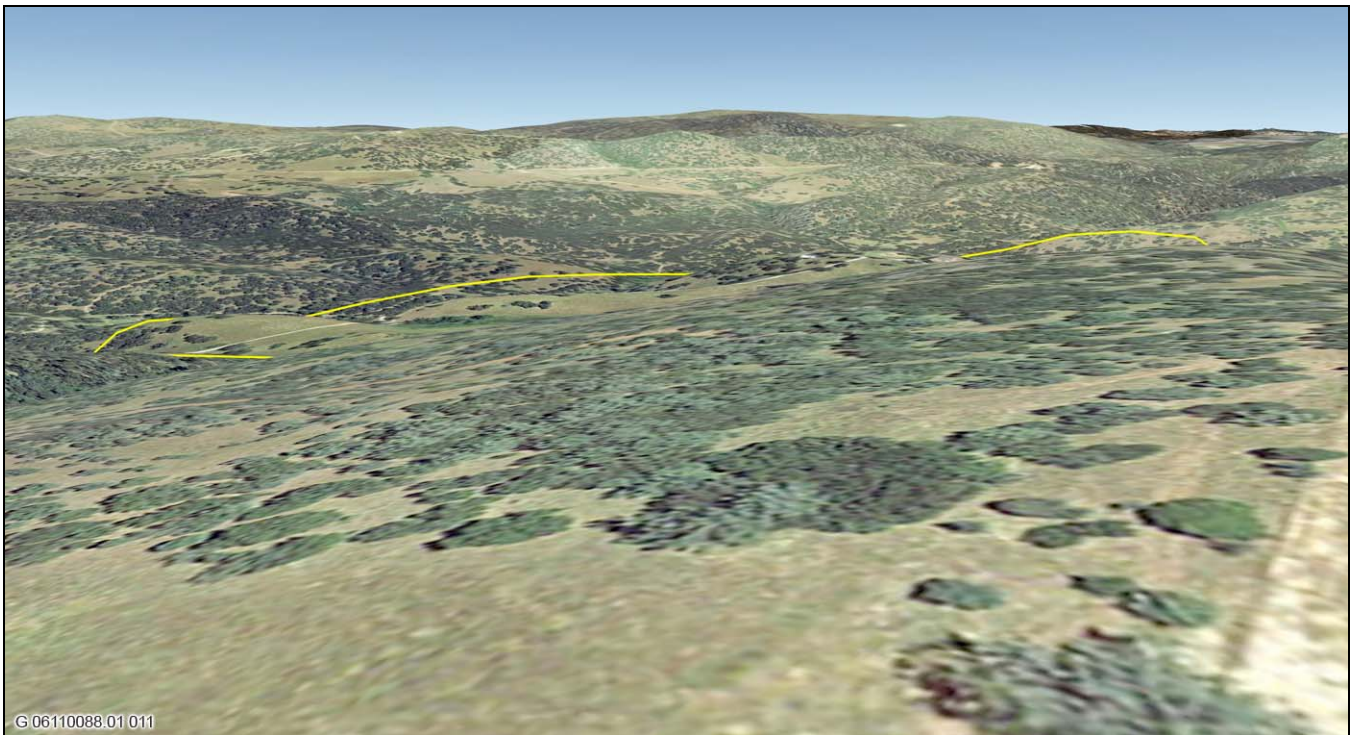




Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking Southeast from Key Observation Point 1**

**Exhibit 7-4**

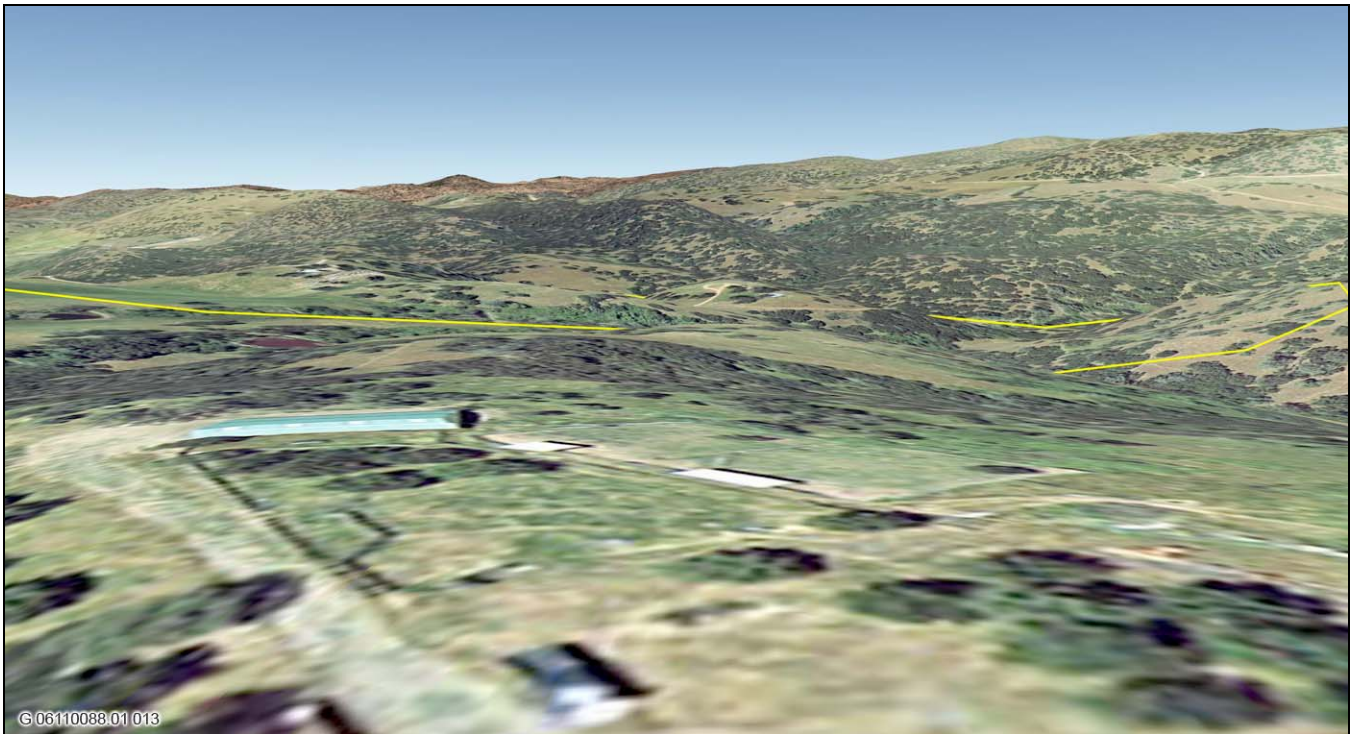


Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking Northeast from Key Observation Point 2**

**Exhibit 7-5**

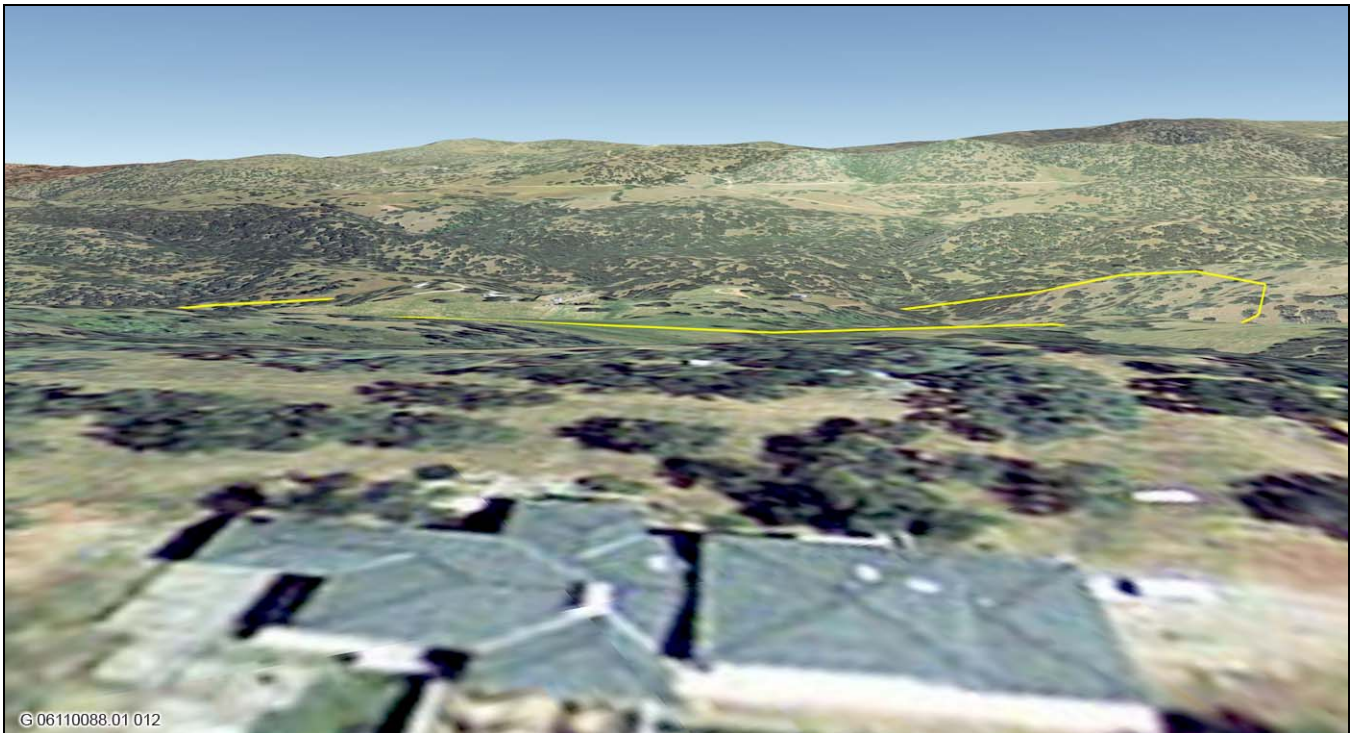




Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking North from Key Observation Point 3**

**Exhibit 7-6**

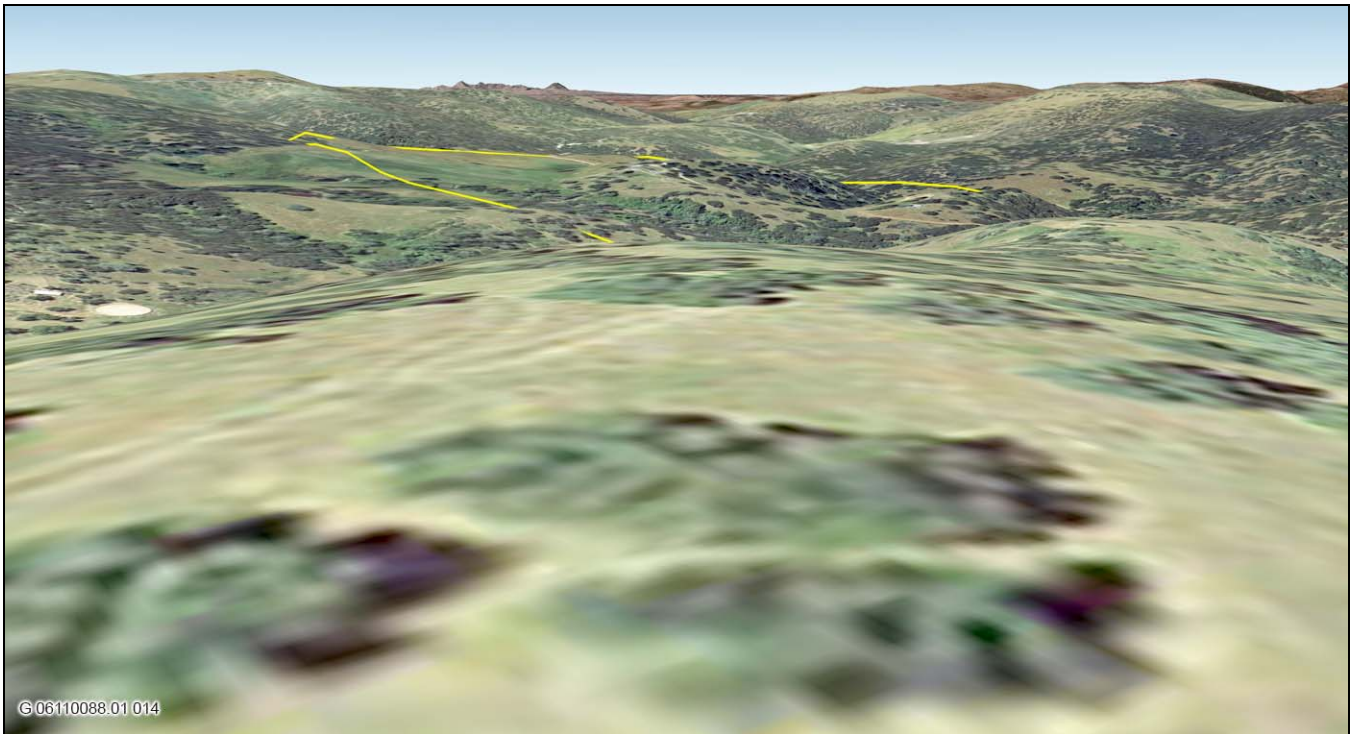


Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking North from Key Observation Point 4**

**Exhibit 7-7**

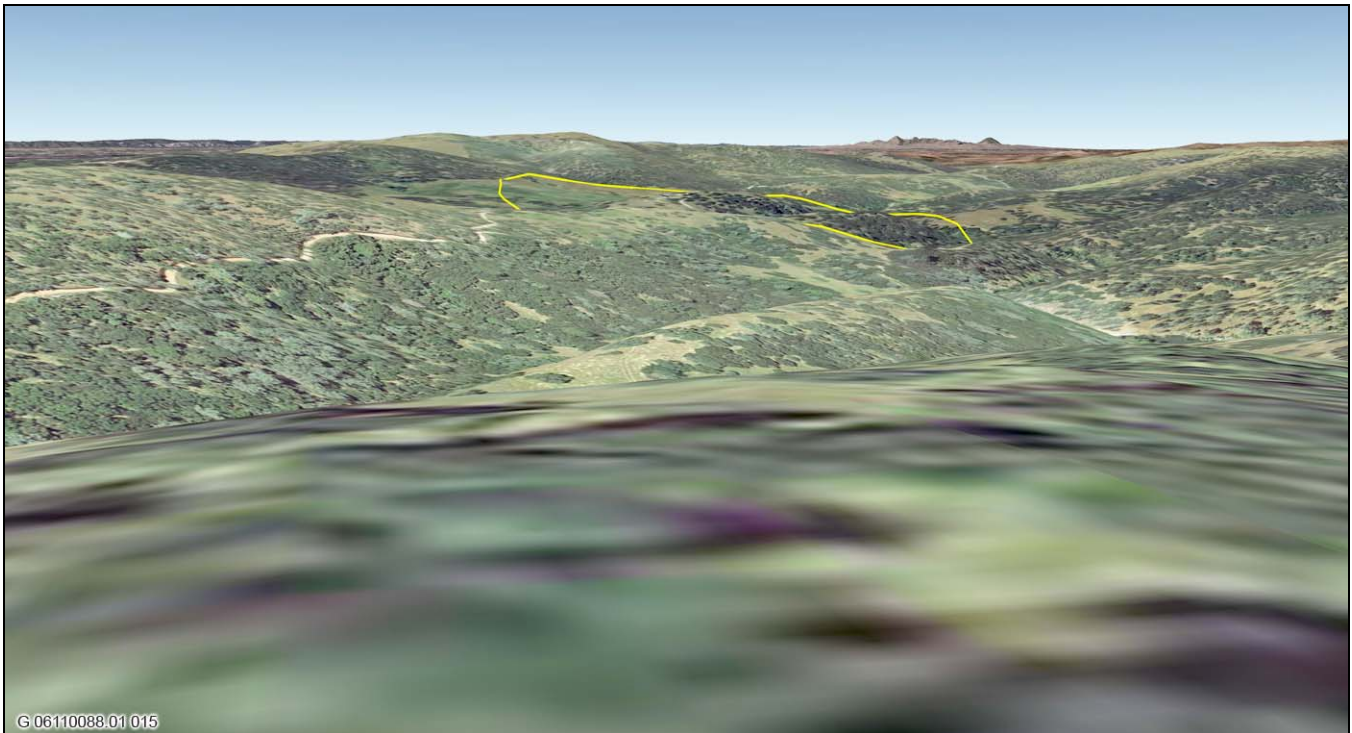




Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking Northwest from Key Observation Point 5**

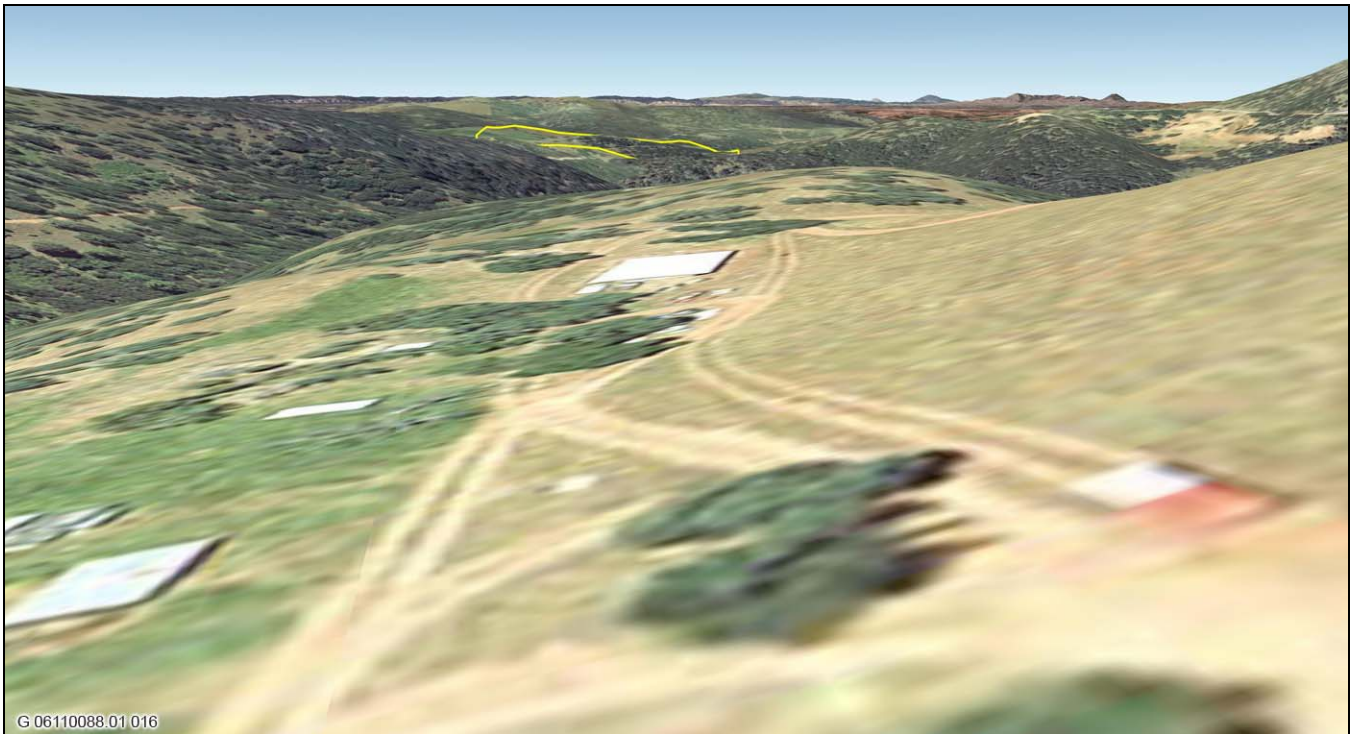
**Exhibit 7-8**



Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking Northwest from Key Observation Point 6**

**Exhibit 7-9**



Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking West from Key Observation Point 7**

**Exhibit 7-10**

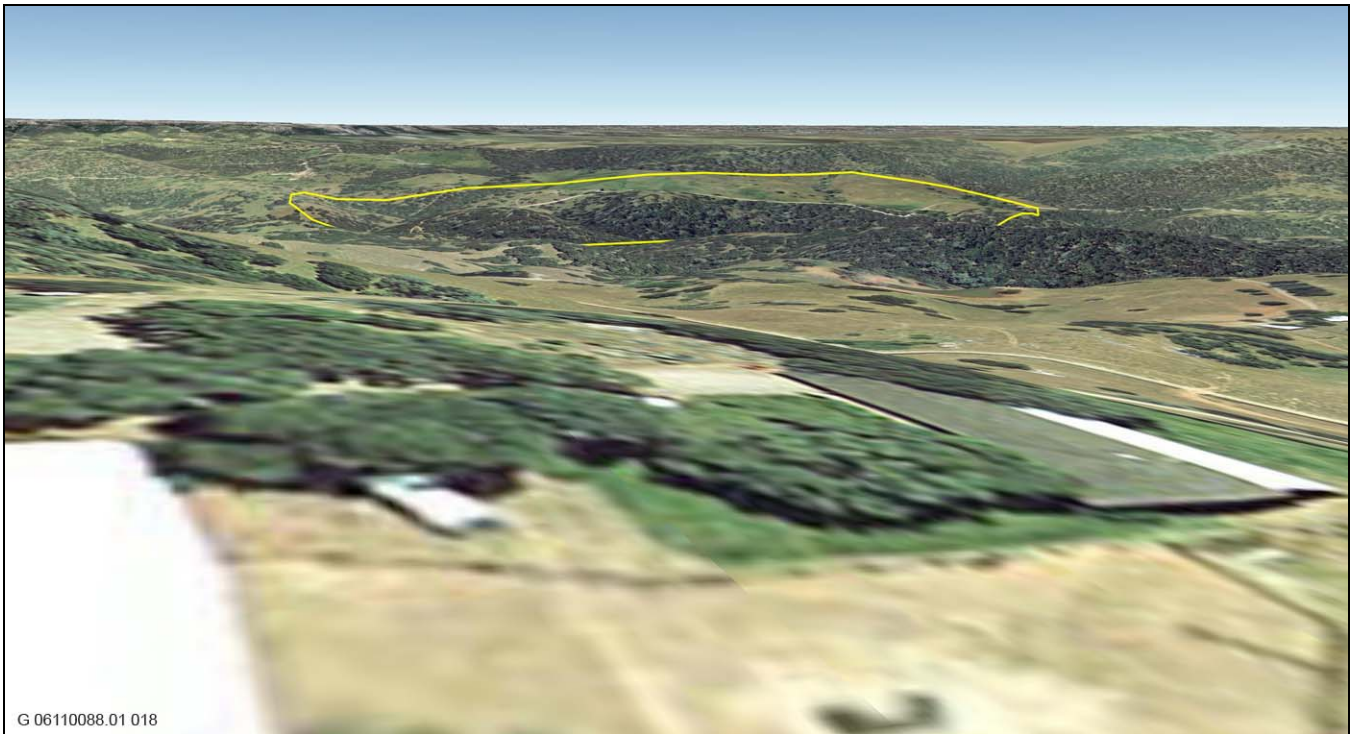


Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking Southwest from Key Observation Point 8**

**Exhibit 7-11**

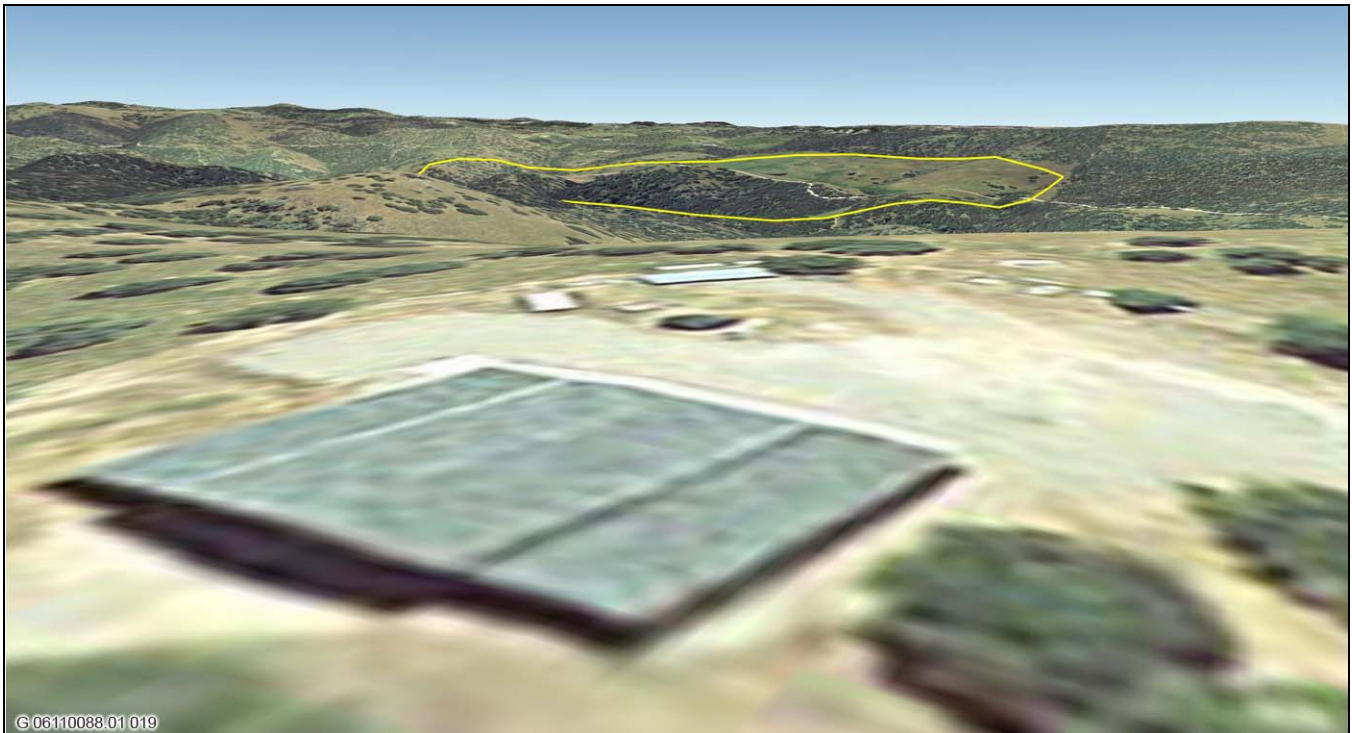




Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking Southwest from Key Observation Point 9**

**Exhibit 7-12**

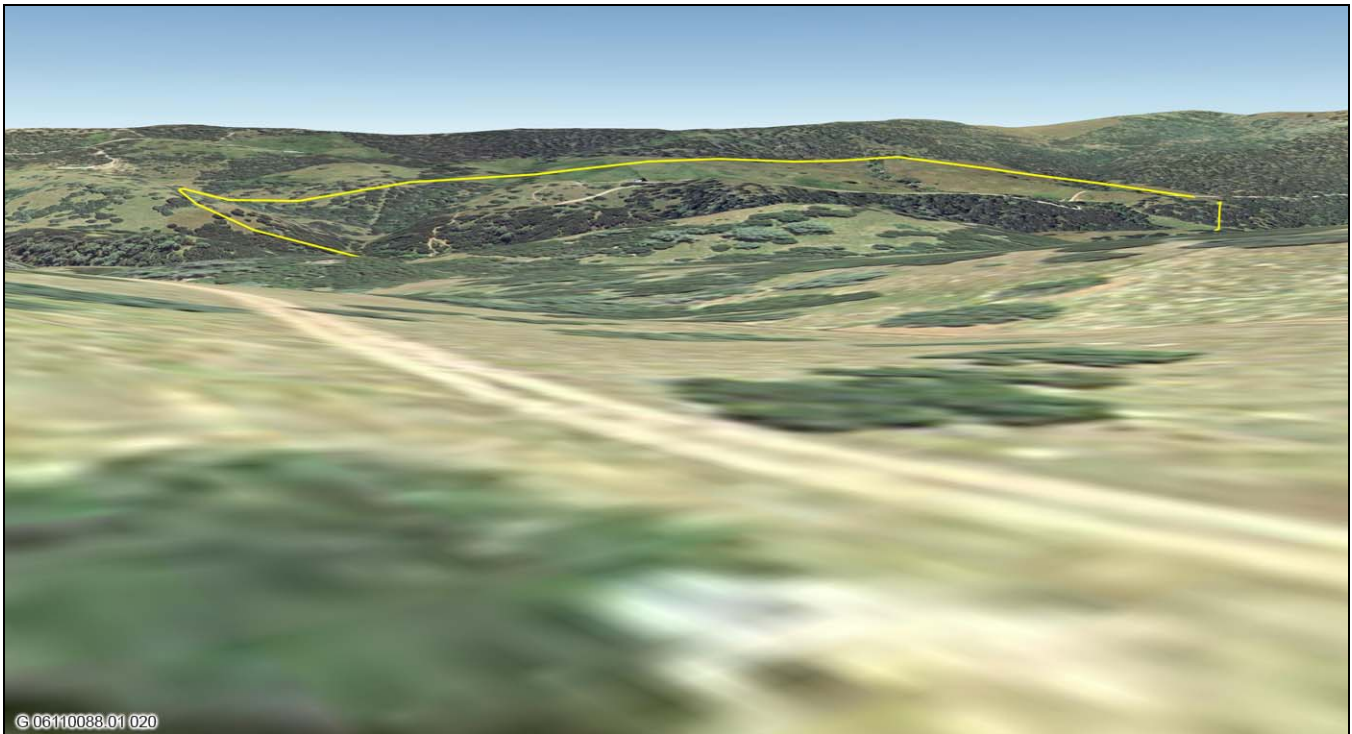


Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking Southeast from Key Observation Point 10**

**Exhibit 7-13**





Source: Google Earth Pro 2008

**Simulated View of Facility Development Zone –  
View Looking Southwest from Key Observation Point 11**

**Exhibit 7-14**

For each of the KOPs shown above, the facility development zone is outlined in yellow. The facility development zone is the location where major facility development within the Park is proposed to occur. As shown in the KOPs, the facility development zone in the Park can be viewed from off-site locations, which primarily include rural residences located at a higher elevation than the project area. However, views from these KOPs are from a minimum 0.25-mile distance and include varying, rolling topography. The exhibits simulating the potential visibility from the KOPs show a digital representation of the surrounding topography, but do not show the surrounding vegetation (e.g., trees) or buildings in three-dimensional images. Intervening vegetation plays an important role in screening potential views of the facility development zone from surrounding homes.

As mentioned previously, only one residence is visible from the Spears Ranch portion of the Park because of the heavy vegetation within and surrounding the project area, including near the homes in some cases. Line of sight to a home from within the facility development zone is a good indicator of visibility from the home back to the zone. The 11 KOPs show the facility development zone in the Park as being potentially visible, because the depiction only takes into account the topography. However, vegetation adjacent to a KOP, between a KOP and the project area, and within the project area would partially or completely obscure views of the project area. Several rural residences have views of the existing facilities within the Didion Ranch portion of the Park including the existing parking area. However, these views are also largely obscured by vegetation and diminished by the view distance.

Construction activities occurring along Garden Bar Road would be visible at numerous locations along Garden Bar Road, including from residences along the road. Therefore, specific KOPs were not identified. Improvements to Garden Bar Road would also require removal of trees adjacent to the roadway. Potential impacts to the overall visual character along Garden Bar Road are analyzed in Impact 7-3 below.

## 7.2 REGULATORY SETTING

### 7.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulations, or laws related to visual resources are applicable to the proposed project.

### 7.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

#### CALIFORNIA SCENIC HIGHWAY PROGRAM

California's Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation. The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic" depending on the amount of the natural landscape that travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view.

There are no state-designated highways within the viewshed of the project area. State Route 49, which is located approximately 20 miles northeast of the project area, has been deemed eligible for listing as a scenic highway but has not been officially designated (Caltrans 2007). No portions of the project area are visible from State Route 49.

### 7.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

#### PLACER COUNTY GENERAL PLAN

The following are the relevant goals and policies identified by the *Placer County General Plan* (General Plan) (Placer County 1994) for visual resources, including scenic routes.

**GOAL 1.K:** To protect the visual and scenic resources of Placer County as important quality-of-life amenities for County residents and a principal asset in the promotion of recreation and tourism.

- ▶ **Policy 1.K.1.** The County shall require that new development in scenic areas (e.g., river canyons, lake watersheds, scenic highway corridors, ridgelines and steep slopes) is planned and designed in a manner which employs design, construction, and maintenance techniques that:
  - avoids locating structures along ridgelines and steep slopes;
  - incorporates design and screening measures to minimize the visibility of structures and graded areas; and
  - maintains the character and visual quality of the area.
- ▶ **Policy 1.K.5.** The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.
- ▶ **Policy 1.L.3.** The County shall protect and enhance scenic corridors through such means as design review, sign control, undergrounding utilities, scenic setbacks, density limitations, planned unit developments, grading and tree removal standards, open space easements, and land conservation contracts.
- ▶ **Policy 1.L.5.** The County shall encourage the development of trails, picnicking, observation points, parks, and roadside rests along scenic highways.
- ▶ **Policy 1.L.7.** The County shall encourage the use of bicycles as an alternative mode of travel for recreational purposes in scenic corridors.

## 7.3 IMPACTS

### 7.3.1 ANALYSIS METHODOLOGY

This visual impact analysis is based on a field survey, review of aerial photographs, and a review of existing KOPs of the area (Exhibit 7-2) in relation to the surrounding vicinity. The elements of the proposed project were compared to existing views of the area to determine how the project area would change from existing conditions. A site reconnaissance of the study area was conducted on July 28, 2007.

### 7.3.2 THRESHOLDS OF SIGNIFICANCE

#### CEQA THRESHOLDS

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on visual resources if it would:

- ▶ have a substantial adverse effect on a scenic vista;
- ▶ substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;
- ▶ substantially degrade the existing visual character or quality of the site and its surroundings; or
- ▶ create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

#### CRITERIA USED IN VISUAL ASSESSMENT

The aesthetic quality of an area is determined through an assessment of the variety and contrasts of the area's visual features, the character of those features, and the scope and scale of the scene. The aesthetic quality of an area depends on the relationships between the area's features and their importance in the overall view. Visual images dominate observers' impressions of the aesthetic qualities of an area. Therefore, evaluating scenic resources requires a method that objectively characterizes visual features, assesses their quality in relation to the visual character of the surrounding area, and identifies their importance to the individuals viewing them. This process is derived from established federal procedures for visual assessment and is commonly used for a variety of project types.

Both natural and created features in a landscape contribute to the perceived visual quality of that landscape. Landscape characteristics influencing visual quality include geologic, hydrologic, botanical, wildlife, recreation, and urban features. A commonly used set of criteria for defining and evaluating visual quality includes the concepts of vividness, intactness, and unity. None of these is itself equivalent to visual quality; all three must be high to indicate high quality. These terms are defined as follows (FHWA 1983):

- ▶ "Vividness" is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.
- ▶ "Intactness" is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements.
- ▶ "Unity" is the visual coherence and compositional harmony of the landscape considered as a whole.

The quality of views of areas that could be affected by the proposed project is evaluated based on the relative degree of vividness, intactness, and unity apparent in the views, and also on viewer sensitivity. Viewer sensitivity is a function of several factors:

- ▶ visibility of the landscape,
- ▶ proximity of viewers to the visual resources,
- ▶ frequency and duration of views,
- ▶ number of viewers,
- ▶ types of individuals and groups of viewers, and
- ▶ viewers' expectations.

The sensitivity of a view of the landscape is also determined by the extent of the public's concern for a particular view. Areas of high visual sensitivity are highly visible to the general public. Scenic highways, tourist routes, and recreation areas are considered more visually sensitive than more urbanized locations. A determination finding that a potential visual impact has significance would be based on a change in visual character as determined by the obstruction of a public view, creation of an aesthetically offensive public view, or adverse changes to objects having aesthetic significance. The distance of a view from landscape elements plays an important role in the determination of an area's visual quality. Landscape elements are considered higher or lower in visual importance based on their position relative to the viewer. Generally, the closer a resource is to the viewer, the more dominant, and therefore visually important, it is to the viewer.

**ISSUES NOT ANALYZED FURTHER**

The proposed project would have no impact associated with the following issues, and these issues will not be analyzed further in this chapter:

- ▶ **Scenic vistas or scenic highways:** There are no scenic vistas or scenic highways in the project area that could be affected by the proposed project. Therefore, these issues are not discussed further.

**7.3.3 IMPACT ANALYSIS**

IMPACT 7-1	Visual Resources—Short-Term Changes in Visual Resources Associated with Project Construction. <i>Construction activity, construction equipment, and areas of vegetation removal would be temporarily visible during and immediately after construction of proposed project facilities (e.g., bridges, trails, viewing boardwalk, roads, parking areas). However, these changes in views would be minimal and not visible from most off-site locations. In addition, all views of construction activities would be temporary.</i>
Significance	<i>Less than Significant</i>
Mitigation Proposed	<i>None Warranted</i>
Residual Significance	<i>Less than Significant</i>

Construction of the proposed project facilities would result in minor changes to the visual character of the project area and the Didion Ranch portion of the Park as a result of vegetation removal and other construction activities. Specifically, construction activities occurring along and associated with improving Garden Bar Road would place

construction vehicles and workers within visual range of residences located near Garden Bar Road. Construction activities would also be visible to travelers along Garden Bar Road.

Residences and travelers along Garden Bar Road would have unobstructed views of construction activities occurring along Garden Bar Road because of their close proximity (within 200 feet). Although views of construction activities are not a common occurrence along Garden Bar Road, the number of viewers would be relatively small, because of the remote location. In addition, construction activities would not occur along the entire stretch of Garden Bar Road at the same time, but would occur at a specific location for a temporary time period then move to another specific location and time period. Construction activities would most likely exceed viewers' expectations for Garden Bar Road; however, construction activities would result only in a short-term change of views along Garden Bar Road. Therefore, construction impacts associated with improving Garden Bar Road would be less than significant.

Specific to the Park, crew members and their vehicles would be present on-site along with a Sweco trail dozer and/or other construction equipment during project construction. Some vegetation would be cleared during construction of trail and road alignments. The proposed trail and road alignments would bypass as many trees as possible, particularly native oaks greater than 6 inches in diameter at breast height (dbh). All cut vegetation would be chipped or lopped and broadcast to the area surrounding the proposed trail and road alignments.

Similar to the construction of trails and roads, construction of site-specific structures (e.g., picnic areas, bridges, viewing boardwalk, information kiosk, restrooms), parking areas, and improvements to the access road from Garden Bar Road would place construction crew members and equipment in the project area. Construction crew members and equipment would also be present near the existing parking area within the Didion Ranch portion of the Park. Some vegetation would be cleared during construction of structures and parking areas. However, these facilities and improvements would avoid trees when possible, particularly native oaks greater than 6 inches dbh. Any cut vegetation would be chipped and broadcast to the area surrounding the structures and parking areas.

Views of construction activities occurring within the Spears Ranch portion of the Park would be partially or completely obscured from rural residences near the project area (within 0.5-mile) because of dense vegetation surrounding and within the project area. Although occupants of nearby residences, as shown in KOPs exhibits above (see Section 7.1.2), appear to have clear views of the project area, the topography, trees, and dense foliage surrounding these residences and located between the residences and the project area obstruct views towards the project area. However, one KOP (refer to Exhibit 7-2 and KOP 2 in Exhibit 7-3) would have a clear view of the facility development zone within the Park and several residences would have views of expansion of the Didion Ranch parking area and associated helistop relocation. Although there would be some views of construction activities in the Park, the number of viewers would be relatively small because of the remote location and dense vegetation. In addition, construction activities would not occur at one location and at the same time but would occur at different locations for a temporary time period then move to a different location for another time period. Construction activities would alter the short-term views of the project area. However, because visibility of construction activity is a temporary impact and the views are at least partially obscured by topography and vegetation, this is considered to be less than significant.

<b>IMPACT</b> 7-2	<b>Visual Resources—Long-Term Changes in Visual Resources Associated within the Proposed Regional Park.</b> <i>The proposed project would introduce new physical elements into the landscape; however, the proposed facilities of the Park (e.g., bridges, trails, viewing boardwalk, restroom, picnic areas, expanded parking area) would be in a remote location, avoiding visually obtrusive effects.</i>
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**Significance** *Less than Significant*

Mitigation *None Warranted*  
Proposed

Residual *Less than Significant*  
Significance

The Park is located in a remote area and visibility from off-site locations is limited because of intervening, dense vegetation and topography. As shown in KOPs (see Section 7.1.2 above), the project area may be viewed from off-site locations that primarily include rural residences located at a higher elevation than the proposed facilities. However, views from these KOPs include rolling topography, and do not show the existing vegetation. Several residences have views of the Didion Ranch parking area; however, a parking area exists in this area and expansion of this area would be small (i.e., 0.35 acre) and would be consistent with existing views. Relocation of the existing helistop on the Didion Ranch portion of the Park to adjacent to the parking area would cause a change in views; however, it would be consistent with existing views of the parking area. The area disturbed by construction would be revegetated following construction and views of the Didion Ranch facilities would be partially screened by vegetation and/or distance. In addition, only one residence has a line of sight into the facility development zone of the Park, because of the heavy vegetation within and surrounding the project area. Therefore, the proposed Park would not be prominently visible from off-site locations and would not cause a substantial change in long-range views from the surrounding area. Park facilities would not be located near any scenic rock outcrops and would incorporate natural colors and materials such as stone, rock, and wood, consistent with the natural character of the project area.

The one KOP (i.e., residence) with an unobstructed view of the Spears Ranch portion of the Park (refer to KOP 2 in Section 7.1.2) has a distant view of the existing ranch house because an open field is located between this KOP and the Park and the intervening topography descends. This building and several other existing structures in the project area would be retained and converted to Park facilities (e.g., caretaker's residence) and several new structures (i.e., bunkhouses) would be constructed in this area. The use of existing buildings on-site and construction of several new buildings would not significantly change the overall views from any of the KOPs. Other facilities associated with the Park (e.g., bridges, information kiosk, restrooms, trails) would not be easily visible from KOPs primarily because of distance and intervening vegetation. Specifically, the viewing boardwalk, caretaker residence, Didion Ranch parking area and helistop, information kiosk, and vehicle crossing located in the central portion of the project area (see Exhibit 3-3) would be the only structures or facilities visible to off-site KOPs, because these structures or facilities would be located in an open area of the Park. Structures constructed outside of the facility development zone including picnic pavilions and vault toilets would be placed in such a manner as to provide visual screening from neighboring homes.

Although facilities and structures associated with the project may be partially visible from several off-site locations, structures and facilities associated with the proposed project would be constructed of similar material types and of similar size as currently found in the project area and, therefore, would be similar-in-nature to the type of structures viewers expect to see in the project area. Because of the limited visibility of the project area (i.e., limited viewers), far distance to viewers, and views of structures and facilities would be similar to existing views of structures (i.e., expectations) in the project area, implementation of the project would have a less-than-significant impact on long-term views of the project area.

<b>IMPACT</b> 7-3	<b>Visual Resources—Long-Term Changes in Visual Resources Associated with the Improvements to Garden Bar Road.</b> <i>The proposed project would widen Garden Bar Road which would require removal of existing trees. The removal of trees would result in a substantial physical change to the visual environment of the road and would occur within close proximity of viewers, including adjacent residents.</i>
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Significance *Significant*

Mitigation Proposed *Mitigation Measure 7-1: Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts; and Mitigation Measure 12-8 in Chapter 12.0, "Biological Resources": Protect Oak Woodland Habitat*

Residual Significance *Significant and Unavoidable*

Widening of Garden Bar Road would change the visual character of the project area as a result of vegetation removal from construction activities. Specifically, widening associated with improving Garden Bar Road for access to the Park would require removal of numerous existing trees. The widening is necessary to provide room for safe curves, appropriate lines of sight for drivers, and space for vehicles traveling in opposite directions to pass each other. Although construction activities would avoid native trees larger than 6 inches dbh to the extent possible and the roadway would remain a two-lane road, a large number of trees would need to be removed (between 100 and 250, depending on the final roadway design). The precise number of trees to be removed is not yet known, because detailed engineering design would be required before a specific inventory of affected trees could be conducted. The majority of potential oak tree removal would be within the Spears Ranch portion of the Park and the densely-vegetated area within 0.5-mile of the Spears entrance along Garden Bar Road. Although Garden Bar Road is not a scenic highway or scenic vista, existing views from adjacent residences and travelers along Garden Bar Road would change. The views of trees lining Garden Bar Road are important in creating the aesthetic character of the project area for travelers on the road and local residents. These views could be changed indefinitely. Therefore, changes to the scenic character of Garden Bar Road would be a significant impact. Implementation of Mitigation Measure 7-1 and 12-8 would reduce this impact, but not to a less-than-significant level. This impact would remain significant and unavoidable.

IMPACT 7-4 *Visual Resources—Increased Light and Glare. The proposed Park would include some security lighting and lighting at the caretaker's residence. However, the lighting in the project area would not change substantially compared to existing lighting.*

Significance *Less than Significant*

Mitigation Proposed *None Warranted*

Residual Significance *Less than Significant*

The proposed Park would include lighting at buildings, including the caretaker's residence, restrooms, bunkhouses, and existing ranch house. Security lighting would also be included at the parking area located at the western-most portion of the Park (see Exhibit 3-3, "Project Description"). No other lighting would be included as part of the project. Security lighting and lighting used at the caretaker's residence is anticipated to be similar to lighting that has been used by the previous resident at the existing ranch house. Similarly, lighting provided as part of the project is anticipated to be similar to the brightness and scale of lighting currently used at the rural residences in the surrounding area. The County would use lighting that is low wattage and directed downward to minimize excess glare or skyglow. Occasional campfires may also create localized nighttime lighting; however, the lighting would be minimal and would be limited to the camp area within the facility development zone.

Recognizing the small amount of additional lighting and the glare-minimizing design criteria, the potential for nighttime glare and skyglow in the project area would be less than significant.

## **7.4 MITIGATION MEASURES**

*Mitigation Measure 7-1 applies to Impact 7-3*

### **Mitigation Measure 7-1: Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts.**

To address the potential degradation of visual quality resulting from tree removal, the County shall revegetate and restore all disturbed areas. Revegetation undertaken between April 1 and October 1 shall include regular watering to ensure adequate initial growth. To the extent feasible, restoration of trees and shrubs shall reduce visual impacts for affected properties. Revegetation of disturbed areas shall promote restoration of vegetation over time that is as consistent as feasible with the surrounding natural landscape, recognizing constraints of the right-of-way and available space. The County shall prepare a restoration and revegetation plan that implements actions intended to mitigate the impacts on trees and vegetation removed along Garden Bar Road. The plan will be prepared in conjunction with detailed roadway engineering design, so that precise areas of disturbance are known and the revegetation process can be coordinated with roadway implementation. Portions of the revegetation plan may be implemented on adjacent property outside the County road right-of-way by agreements with willing property owners.

Implementation of Mitigation Measures 7-1 and 12-8 would reduce the impact related to visual resources, but not to a less-than-significant level. This impact would remain significant and unavoidable.



## 8.0 TRANSPORTATION AND CIRCULATION

This chapter describes existing transportation facilities in the project area and vicinity. It describes the existing roadway network, as well as other current circulation elements (bikeways, bridges, and parking conditions), and discusses the transportation impacts of the proposed project. There are no transit, light rail, or airport facilities in the project vicinity; therefore, these types of facilities will not be discussed further in this chapter. Additional information on transportation and circulation in the project vicinity is provided in Appendices B and C.

### 8.1 ENVIRONMENTAL SETTING

#### 8.1.1 ROADWAYS

Public access to the Park is currently provided by Mears Drive, a County road, via Mt. Pleasant Road and Mt. Vernon Road. Restricted access to the Park is provided via Garden Bar Road. The existing condition of these roadways is described as follows and illustrated in Exhibit 8-1.

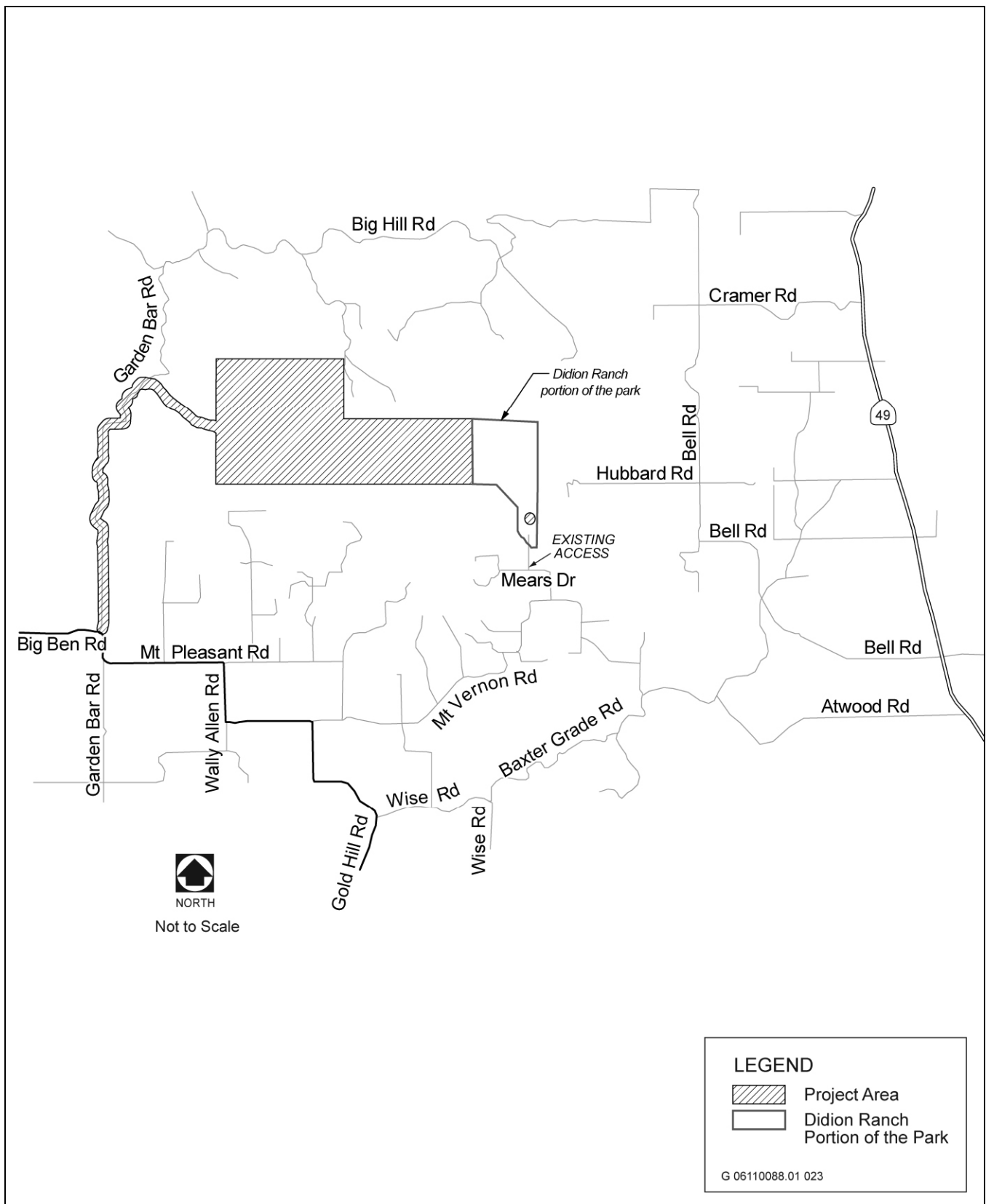
**Mt. Pleasant Road** is a local east-west road that extends for approximately 3 miles linking Big Ben Road and Mt. Vernon Road. Mt. Pleasant Road follows the rolling terrain of the foothills west of Auburn. The road itself is 20–22 feet wide with gravel shoulders of varying width. The County’s ultimate buildout design standard for Mt. Pleasant Road calls for 32 feet of pavement (traveled way and shoulders) within a 60-foot right-of-way with a design speed of 35 mph.

**Mt. Vernon Road** is a rural collector road that extends east from an intersection with Wise Road for about 7 miles into the City of Auburn. The County’s ultimate buildout design standard for Mt. Vernon Road from Wise Road to Joerger Road is for 32 feet of pavement (traveled way and shoulders) within a 60-foot right-of-way with a design speed of 35 mph.

**Mears Drive** is a local street that connects the Didion Ranch portion of the Park with Mt. Vernon Road. This two-lane road features 20 feet of pavement and limited shoulders. The County’s ultimate buildout design standard for Mears Drive north of Mt. Vernon Road is for 32 feet of pavement (traveled way and shoulders) within a 60-foot right-of-way with a design speed of 30 mph.

**Garden Bar Road** is a local road that extends north from an intersection with Fruitvale Road across Mt. Pleasant Road along the west side of the Park and terminates at a private gated road approximately 1.5 miles north of the Park. The northern portion of Garden Bar Road (i.e., Garden Bar Road North) extends from the intersection with Mt. Pleasant Road to the northern terminus. The southern portion of Garden Bar Road (i.e., Garden Bar Road South) extends from the intersection with Fruitvale Road to the intersection with Mt. Pleasant Road. The alignment and width of Garden Bar Road vary greatly along its length. In the area of the proposed project the road varies from approximately 15 to 20 feet in width. Shoulders are most often nonexistent and horizontal curves with radii as short as 80 feet exist at various locations. The County’s ultimate buildout design standard for Garden Bar Road is for 32 feet of pavement (traveled way and shoulders) within a 60-foot right-of-way with a design speed of 35 mph.

The existing daily traffic volumes for roadways in the project vicinity are presented in Table 8-1, including the applicable levels of service (LOS). (See Section 8.2.1, “Federal Plans, Policies, Regulations, and Laws,” below for LOS definitions.)



Source: Data provided by Kd Anderson & Associates in 2008

## Roadways in the Project Vicinity

## Exhibit 8-1

<b>Table 8-1</b> <b>Existing Daily Traffic Volumes and Levels of Service</b>								
Road	From	To	Class	Pavement	Weekday		Weekend	
					Daily Volume	Level of Service	Daily Volume	Level of Service
Garden Bar Road (N)	Mt. Pleasant Road	Park Entrance	Mountainous Rural	<18 feet	285	B	260	A
Mt. Pleasant Road	Big Bend Road	Garden Bar Road (N)	Rolling Rural	>18 feet	375	A	310	A
Mt. Pleasant Road	Garden Bar Road (S)	Wally Allen Road	Rolling Rural	>18 feet	910	B	710	B
Garden Bar Road (S)	Mt. Pleasant Road	Wise Road	Rolling Rural	>18 feet	885	B	715	B
Mears Drive	Mt. Vernon Road	Mears Place	Rolling Rural	>18 feet	377	A	314	A
Source: Data provided by Kd Anderson & Associates in 2008								

## 8.1.2 INTERSECTIONS

The quality of traffic flow is often governed by the operation of key intersections. The intersections in the project vicinity described below were evaluated in consultation with County staff. Existing LOS for project-area intersections are shown in Table 8-2.

Table 8-2 Existing Intersection Levels of Service							
Intersection	Control	Weekday				Traffic Signal Warrants Met?	
		A.M. Peak Hour (7:00 to 9:00 a.m.)		P.M. Peak Hour (4:00 to 6:00 p.m.)		a.m. peak hour	p.m. peak hour
		LOS	Average Delay (seconds per vehicle)	LOS	Average Delay (seconds per vehicle)		
Mt. Pleasant Road/ Garden Bar Road (North)	SB Stop					No	No
EB left turn		A	7.3	A	7.3		
SB left+right turn		A	8.7	A	8.8		
Mt. Pleasant Road/ Garden Bar Road (South)	NB Stop					No	No
EB left turn		A	7.4	A	7.3		
NB left+right turn		A	8.9	A	8.7		
Notes: EB = eastbound; NB = northbound; SB = southbound; LOS = level of service Source: Data provided by Kd Anderson & Associates in 2008							

## GARDEN BAR ROAD (NORTH)/MT. PLEASANT ROAD

The Garden Bar Road (North)/Mt. Pleasant Road intersection is a “tee” intersection controlled by a stop sign on the southbound Garden Bar Road approach. The intersection is located on a horizontal curve along Mt. Pleasant Road. There are no turn lanes on Mt. Pleasant Road at the northern Garden Bar Road intersection.

## GARDEN BAR ROAD (SOUTH)/MT. PLEASANT ROAD

The Garden Bar Road (South)/Mt. Pleasant Road intersection is a “tee” intersection controlled by a stop sign on the northbound Garden Bar Road approach. The intersection is located on a horizontal curve along Mt. Pleasant Road. There are no turn lanes on Mt. Pleasant Road at the southern Garden Bar Road intersection.

### 8.1.3 PEDESTRIAN/BICYCLE FACILITIES

Dedicated pedestrian and bicycle facilities are limited in this area of the county. *The Placer County Regional Bikeway Plan* (2002) notes the location of existing and planned bicycle facilities in the incorporated and unincorporated areas of the county. There are no designated facilities in the immediate area of the proposed project.

The Didion Ranch portion of the Park provides natural-surface multiple-use trails that are used by equestrians, bikers, and hikers. However, use of the Didion Ranch trails typically requires trail users to haul their horses or bicycles to the Park by car or truck.

## 8.2 REGULATORY SETTING

### 8.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

#### LEVELS OF SERVICE

As defined by the Transportation Research Board, LOS describes the operating conditions of a roadway based on such factors as speed, travel time, maneuverability, delay, and safety. The LOS for a given facility is designated with a letter between A and F, with A representing the best operating conditions and F representing the worst. These letter designations are described in more detail in Table 8-3.

Table 8-3 Level of Service Definitions	
LOS	Description
A	Free Flow: Almost no platoons of three or more cars. Driver delayed no more than 30% by slow-moving vehicles.
B	Free Flow: Some platoons form. Driver delayed no more than 45% by slow-moving vehicles.
C	Stable Flow: Noticeable increase in platoon formation and size. Drivers delayed no more than 60% by slow-moving vehicles.
D	Approaching Unstable Flow: Heavy platooning. Passing becomes more difficult. Drivers delayed no more than 75% by slow-moving vehicles.
E	Unstable Flow: Intense platooning. Passing is virtually impossible. Drivers delayed more than 75% by slow-moving vehicles.
F	Forced Flow: Queues form behind breakdown points.
Note: LOS = level of service Source: Transportation Research Board 2000	

## 8.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

No state plans, policies, regulations, or laws related to transportation and circulation are applicable to the proposed project.

## 8.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

### PLACER COUNTY GENERAL PLAN

The following are the relevant policies identified by the *Placer County General Plan* (Placer County 1994) for transportation and circulation.

- ▶ **Policy 3.A.7.** [Placer] County shall develop and manage its roadway system to maintain the following minimum LOS.
  - LOS “C” on rural roadways, except within one-half mile of state highways where the standard shall be LOS “D.”
  - LOS “C” on urban/suburban roadways except within one-half mile of state highways where the standard shall be LOS “D.”
- ▶ **Policy 3.A.10.** The County shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile.
- ▶ **Policy 3.D.1.** The County shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provides connections between the County’s major employment and housing areas and between its existing and planned bikeways.
- ▶ **Policy 3.D.2.** The County shall work with neighboring jurisdictions to coordinate planning and development of the County’s bikeways and multipurpose trails with those of neighboring jurisdictions.
- ▶ **Policy 3.D.3.** The County shall pursue all available sources of funding for the development and improvement of trails for nonmotorized transportation (bikeways, pedestrian, and equestrian).
- ▶ **Policy 3.D.4.** The County shall promote nonmotorized travel (bikeways, pedestrian, and equestrian) through appropriate facilities, programs, and information.
- ▶ **Policy 3.D.6.** The County shall support the development of parking areas near access to hiking and equestrian trails.

## 8.3 IMPACTS

### 8.3.1 ANALYSIS METHODOLOGY

Impacts on transportation and circulation that would result from the proposed project were identified by comparing existing service capacity and facilities against anticipated future demand associated with implementation of the proposed project. The *Traffic Safety Study for Garden Bar Road* (Placer County 2007) (Appendix C) was also prepared for the project to analyze traffic safety issues related to Garden Bar Road.

### 8.3.2 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on traffic or circulation if it would:

- ▶ cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system;
- ▶ result in inadequate emergency access;
- ▶ result in insufficient parking capacity on-site or off-site;
- ▶ cause a substantial increase in hazards attributable to a design feature;
- ▶ exceed, individually or cumulatively, a LOS standard established by the county congestion management agency for designated roadways; or
- ▶ conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

As mentioned above, there are no transit, light rail, or airport facilities in the project vicinity; therefore, the proposed Park would not have an impact on any of these types of facilities. The proposed Park would not conflict with any policies supporting alternative transportation. Because the proposed project would have no impact on these resources, they are not discussed further in this chapter.

### 8.3.3 IMPACT ANALYSIS

IMPACT 8-1	Transportation and Circulation—Temporary Increase in Traffic during Construction. <i>During construction of the proposed Park, local roadways would experience an increase in traffic from daily commutes by construction workers and delivery trucks. However, this increase in traffic would be temporary and is not expected to be substantial in relation to the existing traffic load and capacity of area roadways.</i>
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Significance	<i>Less than Significant</i>
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Mitigation Proposed	<i>None Warranted</i>
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Residual Significance	<i>Less than Significant</i>
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During construction of the proposed project, there would be a temporary increase in construction-related traffic from delivery trucks and construction workers traveling to and from the project area. The number of workers would vary over the life of the construction activity. The maximum number of workers who would be commuting to the project area at any given time would be four 15-person California Conservation Corps crews and 10–15 other workers/delivery drivers. The crews would commute in four vans, one per 15-person crew. Therefore, it is expected that the maximum number of vehicle trips generated in any one day would be four vans and 10–15 other worker/delivery vehicles.

This would be in addition to ongoing daily trips generated by County maintenance staff and members of the public visiting the Didion Ranch portion of the Park. Carpooling among construction workers would be encouraged by the County to reduce the number of vehicle trips to the extent possible. Construction of the trail system and associated recreational facilities is expected to generate a total of 400 delivery trucks over the duration of project construction (i.e., several years) to haul needed materials (e.g., concrete and lumber) to and from the project area. For Phase 1 of construction, truck traffic is expected to be approximately 10–20% of the total number of truck trips (i.e., 40–80 truck trips).

Because the local roads providing access to the Park are currently operating at LOS C or better, this increase in traffic would constitute a temporary and very small increase in traffic and would not be substantial in relation to existing traffic load and capacity of Mt. Vernon Road, Mears Drive, Mt. Pleasant Road, or Garden Bar Road. In addition, this increase in traffic would be intermittent with the active periods of construction. Therefore, this impact would be less than significant.

<b>IMPACT</b> 8-2	<b>Transportation and Circulation—Increase in Traffic Impacts Associated with Use of Garden Bar Road.</b> <i>Additional automobiles and trucks with equestrian trailers entering and exiting the proposed Park entrance via Garden Bar Road could cause an increase in traffic impacts in the project area. Garden Bar Road would be improved with the project and the Park entrance would be designed for safe ingress and egress of trucks and trailers.</i>
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<b>Significance</b>	<i>Less than Significant</i>
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<b>Mitigation Proposed</b>	<i>None Warranted</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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Planned improvements to Garden Bar Road are presented in *Traffic Safety Study for Garden Bar Road* (Placer County 2007) (Appendix C). The improvements are proposed in 3 phases. In Phase 1, the access road between Garden Bar Road and the Park would be improved. Daily public automobile access would not be allowed into this Park entrance in Phase 1; County maintenance access and potential classroom-sized events with restricted bus and automobile travel to the Park would be allowed by appointment. Prior to opening the Park to general public vehicle access, the improvements in Phase 2 are intended to provide a minimum 18-foot roadway width, where feasible. In areas along Garden Bar Road and the access road from Garden Bar Road to the Park entrance where the County determines that status trees, significant rock outcroppings, and other valuable natural features within the proposed widening corridor should be preserved or where adequate road right-of-way does not currently exist and is not obtainable through market value based willing seller negotiations, alternatives such as turnouts, striping, and/or signage may be considered and approved in lieu of full width widening for those discreet areas. Public automobile and bus access would be allowed into the Spears Ranch portion of the Park via Garden Bar Road with Phase 2 improvements; however, horse trailer access would not be allowed. Prior to allowance of general access by horse trailers, Phase 3 improvements would provide a 20-foot roadway width and parking suitable for horse trailers. Ultimately, in Phase 3 horizontal and vertical curve radii would be designed to 35 mph and 25 mph standards. While recognizing that the 25-mph design does not meet the County’s requirements for a rural secondary road, the safety study notes:

Due to the nature of the existing roadway the standard for a rural secondary roadway is not considered appropriate for this setting and would result in unnecessary widening of the existing road and change in character of the roadway given the existing and future use levels. The County Fire Department’s requirement is an 18 foot wide all-weather surface and is considered appropriate for Phase 3.

A traffic safety hazard could result if portions of a street are designed to substantially lower speeds than others and motorists are surprised to encounter reduced speed conditions. However, in this case, warning signage would be established and the results of the improvements proposed in the safety study would be consistent with the expectations of motorists on Garden Bar Road north of Mt. Pleasant Road.

Although the proposed improvements would not bring all of Garden Bar Road north of Mt. Pleasant Road up to adopted County standards for minimum horizontal and vertical curves, substantive and strategic improvements would be made to enhance traffic safety. Proper signage would also improve safety.

In addition to proposed improvements along Garden Bar Road, the proposed entrance to the Park would be realigned and may be converted to a three-way stop. These improvements would improve sight distance at this location. Signage in both directions noting the presence of the Park entrance would also improve driver awareness and safety of entering and exiting the Park. The need for a three-way stop at the entrance would be reviewed by the County Department of Public Works after the Park is opened.

Trucks with equestrian trailers using Garden Bar Road to travel to and from the Park could increase impacts to traffic in the project area after they are allowed to access the Park with completion of Phase 3. However, additional improvements would be made to Garden Bar Road under Phase 3 of the project to allow safe access for trucks and trailers. Improvements made to the Park entrance would also be designed for safe ingress and egress of these trucks and trailers. Because Garden Bar Road and the Park entrance would be improved before trucks and trailers would be allowed to access the Park from Garden Bar Road, this impact would be less than significant.

<b>IMPACT</b> 8-3	<b>Transportation and Circulation—Increase in Traffic with Operation of the Park.</b> <i>The proposed Park would add approximately 255 one-way vehicle trips per day (weekday) to 460 one-way vehicle trips per day (weekend) during peak visitation periods, with 25–30 of those one-way trips expected during weekday peak commute hours. This traffic increase would not result in conditions in excess of adopted standards at intersections or on individual roadway segments.</i>
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<b>Significance</b>	<i>Less than Significant</i>
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<b>Mitigation Proposed</b>	<i>None Warranted</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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The impacts associated with the proposed project have been evaluated based on the amount of traffic generated and added to access roads to the project vicinity. Improvements to Garden Bar Road, the Park, Park entrance, and parking areas, as outlined in Exhibit 3-1 and Appendices B and C, would be completed prior to allowance of public access associated with each improvement. At full project buildout (i.e., Phases 1-3) the project could ultimately add approximately 255 one-way vehicle trips per day during the week and 460 one-way vehicle trips per day on weekends to roadways in the project vicinity during peak seasons and favorable weather conditions (See Table 8-4). This would equate to 128 round trips per day on weekdays and 230 round trips per day on weekends visiting the Park. As defined in this EIR, each vehicle visiting the Park makes two trips per visit, one ingress trip and one egress trip. Of the 255 weekday vehicle trips, the project could add approximately 28 one-way trips in the a.m. peak commute hours and 27 one-way trips in the p.m. peak commute hours. During the highest hour on a weekend the project could add approximately 80 trips to area roadways.



<b>Table 8-4 Trip Generation Forecast</b>					
Land Use	Trip Generation				
	Weekday			Weekend	
	Daily Total	a.m.	p.m.	Daily Total	Peak Hour
Hidden Falls Regional Park	255	28	27	460	80
Source: Data provided by Kd Anderson & Associates in 2008					

The Park would be used primarily by residents of western Placer County living in an area bounded by State Route (SR) 49 on the east, SR 65 on the west, and the Rocklin–Roseville urban area to the south. The assignment of project trips to roadways in the project vicinity would reflect the location of planned parking facilities and the travel time between those facilities and destinations of Park users. Once the Garden Bar Road improvements and the Didion Ranch parking area expansion are completed, the total number of daily trips is expected to be split between Garden Bar Road and Mears Drive. The exact percentage of the total that would be observed on each roadway is not known; however, to estimate a worst-case evaluation of project impacts on Garden Bar Road, it is assumed that 100% of the project trips would be on Garden Bar Road. Initial use of the Spears Ranch portion of the Park may occur before Garden Bar Road access is developed, and during that time, fewer trips to the Park are expected and 100% of the trips would be on Mears Drive.

Table 8-5 identifies the peak-hour LOS at intersections in the project vicinity under existing and existing plus project conditions. As shown, the addition of project-related traffic would not result in conditions in excess of adopted standards. All local roadways would continue to operate at LOS A or B.

Table 8-5 Existing plus Project Peak Hourly Intersection Levels of Service											
Intersection	Control	Weekday								Traffic Signal Warrants Met?	
		A.M. Peak Hour (7:00 to 9:00 a.m.)				P.M. Peak Hour (4:00 to 6:00 p.m.)					
		Existing		Existing Plus Project		Existing		Existing Plus Project			
		LOS	Average Delay (seconds per vehicle)	LOS	Average Delay (seconds per vehicle)	LOS	Average Delay (seconds per vehicle)	LOS	Average Delay (seconds per vehicle)	A.M. Peak Hour	P.M. Peak Hour
Garden Bar Road/Access SB left turn WB left+right turn	WB Stop	–	–	–	–	–	–	–	–	No	No
Mt. Pleasant Road/ Garden Bar Road (N) EB left turn SB left+right turn	SB Stop	A	7.3	A	7.3	A	7.3	A	7.3	No	No
		A	8.7	A	8.8	A	8.8	A	8.9		
Mt. Pleasant Road/ Garden Bar Road (S) EB left turn NB left+right turn	NB Stop	A	7.4	A	7.4	A	7.3	A	7.3	No	No
		A	8.9	A	9.1	A	8.7	A	8.8		
Notes: EB = eastbound; NB = northbound; SB = southbound; WB = westbound; LOS = level of service; Source: Data provided by Kd Anderson & Associates in 2008											

Table 8-6 identifies the daily traffic volumes added to roads in the project vicinity if all traffic associated with the project uses Garden Bar Road. As indicated, total volumes do not result in LOS in excess of minimum County standards (i.e., LOS C). In addition, the County would pay a traffic impact fee to the Capital Improvement Program in accordance with Section 15.28.010 of the Placer County Code to further off-set any traffic impacts of the project on area roadways.

Because the traffic increase associated with operation of the Park would not result in conditions in excess of adopted standards at intersections or on individual roadway segments, this impact would be less than significant. It should also be noted that, while project-related traffic would not exceed adopted standards resulting in a significant impact, safety improvements to existing roadway segments in the project vicinity are proposed in phases as part of the proposed project (summarized in Table 3-1, in Chapter 3.0, "Project Description.")

Table 8-6 Existing plus Project Daily Traffic Volumes and Levels of Service													
Road	From	To	Class	Weekday					Weekend				
				Existing		Existing Plus Project			Existing		Existing Plus Project		
				Daily Volume	LOS	Daily Volume Project	Daily Volume Total	LOS	Daily Volume	LOS	Daily Volume Project	Daily Volume Total	LOS
Project Access via Garden Bar Road													
Garden Bar (N)	Mt. Pleasant Road	Park Entrance	Mountainous Rural	285	A	256	541	B	260	A	460	720	B
Mt. Pleasant	Big Bend Road	Garden Bar (N)	Mountainous Rural	375	A	82	457	B	310	A	148	458	B
Mt. Pleasant	Garden Bar Road (S)	Wally Allen	Mountainous Rural	910	B	90	1,000	C	710	B	162	872	B
Garden Bar (S)	Mt. Pleasant	Wise	Mountainous Rural	885	B	84	869	B	715	B	152	867	B
Interim Access via Mears Drive Only													
Mears Drive	Mears Place	Mt. Vernon	Mountainous Rolling	377	A	255	632	A	314	A	460	774	B
Source: Data provided by Kd Anderson & Associates in 2008													

**IMPACT 8-4**      **Transportation and Circulation—Increase in Traffic related to Reservation-based Events in the Park.** *Reservation-based events at the Park could cause an increase in automobile, truck, and bus traffic in addition to regular Park use. Use of Garden Bar Road by buses and/or delivery trucks could impact traffic flow along the road.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 8-1: Implement Traffic Control Measures During Park Reservation-based Events*

**Residual Significance**      *Less than Significant*

The proposed project may include use of the Park for reservation-based events, such as training and race meets for cross-country runners, and educational field trips. Garden Bar Road would be improved as outlined in Table 3-1 and Appendix C prior to general public access to the Park by trucks and buses along Garden Bar Road. It is expected that reservation-based events requiring reservations (i.e., those involving less than 200 individuals) would generate an increase in vehicular traffic. Peak traffic would be immediately prior to the start and immediately following each event. Buses for reservation-based events could include a combination of school buses and charter buses. Although Garden Bar Road is a designated school bus route and improvements would be made to Garden Bar Road prior to allowing reservation-based events, use of Garden Bar road by charter buses or large trucks could impact traffic flow, if oncoming vehicles are present because of the limited turning radii of large vehicles negotiating the two-lane Garden Bar Road.

Large events (defined as those involving 200 or more individuals on-site at any given time and/or that exceed the parking capacity of the Park) would be required to obtain a Temporary Event Permit from the County and would undergo separate environmental review. Because of the variable nature of large events and event-specific impacts related to large events cannot be fully evaluated at this time and would require separate environmental review.

Therefore, because delivery truck or bus traffic related to reservation-based events could adversely affect traffic flow on Garden Bar Road, this impact would be potentially significant. Implementation of Mitigation Measure 8-1 would reduce this impact to a less-than-significant level.

<b>IMPACT</b> 8-5	<b>Transportation and Circulation—Adequacy of Parking for Park Visitors.</b> <i>There would be increased demand for parking at the Park and adequate parking would be provided to accommodate Park visitors. Large events that could result in an exceedance of parking capacity would be required to obtain a Temporary Event Permit and undergo separate environmental review.</i>
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<b>Significance</b>	<i>Less than Significant</i>
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<b>Mitigation Proposed</b>	<i>None Warranted</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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Parking options being considered for the Park include a surfaced parking area to accommodate anticipated uses and a gravel equestrian parking area, a gravel overflow parking area, a parking area to accommodate the nature center, and a handicapped accessible parking area near the emergency access bridge. The western parking area proposed at the Spears Ranch entrance to the Park would include 50 parking spaces for cars, 12 unpaved parking spaces for trucks and trailers, and a gravel overflow area. Currently there are 50 parking spaces for cars and six parking spaces for trucks and equestrian trailers in the Didion Ranch portion of the Park. The parking area in the Didion Ranch portion of the Park would also be expanded as part of the proposed project to include up to 12 additional parking spaces for trucks and trailers. In addition, up to 25 additional paved car parking stalls may be developed adjacent to the existing Didion parking area. Therefore, it is expected that adequate parking would be provided to accommodate daily use of the Park.

Although, adequate parking would be provided for daily use, large events at the Park could exceed the capacity of the parking areas. Therefore, large events would be required to obtain a Temporary Event Permit and would undergo separate environmental review.

Because parking areas would be provided on both sides of the Park and the sizes of the parking areas are expected to be adequate to accommodate Park users, and events that could exceed the capacity of the parking areas would

be required to undergo separate environmental review that would require measures to ensure adequate parking, this impact would be less than significant.

**IMPACT 8-6**      **Transportation and Circulation—Potential Interference with Emergency Response Routes.** *The proposed trail system would have several access points to provide adequate access for emergency response vehicles and personnel within the Park.*

**Significance**      *Less than Significant*

**Mitigation Proposed**      *None Warranted*

**Residual Significance**      *Less than Significant*

There are no known existing emergency response or evacuation routes in the project area. Emergency access within the Park would include 10 miles of existing roads that would be accessible to emergency vehicles and personnel within the Spears Ranch portion of the Park. In addition, an emergency access bridge across Coon Creek would provide emergency access to the northern portion of the Park. Garden Bar Road would be improved to the County Fire Department's requirements before the Spears Ranch portion of the Park would be opened to public automobile and bus access (with the exception of limited, managed classroom-sized events and handicapped access conducted by appointment). The proposed project would also include a new helistop in the Spears Ranch portion of the Park and a relocated helistop in the Didion Ranch portion of the Park for emergency helicopter access. Because the proposed project would not interfere with any emergency response routes and would provide adequate emergency access on-site, this impact would be less than significant.

## 8.4 MITIGATION MEASURES

**Mitigation Measure 8-1: Implement Traffic Control Measures During Park Reservation-based Events.**

*Mitigation Measure 8-1 applies to Impact 8-4.*

Reservation-based events (involving less than 200 people on-site at a given time) would be regulated by the County Parks Division Reservation System. The Reservation System would include, but not be limited to, applicable restrictions on:

- ▶ event start and end times so as to minimize impacts to traffic along Garden Bar Road and not to exceed peak usage capacity or coincide with scheduled use of the road by school buses;
- ▶ regulation of number and types of vehicles so as not to exceed parking capacity (i.e., 50 paved stalls and 20 truck and trailer gravel stalls) in combination with daily use;
- ▶ the range of vehicle sizes allowed on Garden Bar Road during Phases 1 and 2 to be determined by the County Department of Public Works. Vehicles exceeding the maximum unrestricted size on Garden Bar Road shall be subject to County-imposed traffic controls;

The County may also regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary.

Implementation of this mitigation measure would reduce Impact 8-4 to a less-than-significant level.

## **9.0 AIR QUALITY**

This chapter includes a description of existing air quality, a summary of applicable regulations, and analyses of potential short-term and long-term impacts of the proposed project on air quality. The methods of analysis for short-term construction, long-term regional (operational), local mobile source, odor, and toxic air contaminant (TAC) emissions are consistent with the recommendations of the Placer County Air Pollution Control District (PCAPCD). Mitigation measures are recommended as necessary to reduce significant air quality impacts.

### **9.1 ENVIRONMENTAL SETTING**

The project area is located in the western portion of Placer County, California, which is within the Sacramento Valley Air Basin (SVAB). The SVAB also comprises all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba Counties and the eastern portion of Solano County. Western Placer County is also part of the Sacramento Federal Ozone Nonattainment Area, which comprises Sacramento and Yolo Counties and parts of El Dorado, Solano, and Sutter Counties. PCAPCD works in conjunction with the air pollution control and air quality management districts of these contiguous jurisdictions to develop plans to bring the entire ozone nonattainment area into compliance.

Ambient concentrations of air pollutants are determined by the amount of emissions released by pollutant sources and the ability of the atmosphere to transport and dilute such emissions. Terrain, wind, atmospheric stability, and the presence of sunlight all affect transport and dilution. Therefore, existing air quality conditions in the project area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

#### **9.1.1 TOPOGRAPHY, CLIMATE, AND METEOROLOGY**

Land within the SVAB is relatively flat, bordered by the north Coast Range to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta (Delta) from the San Francisco Bay Area.

The Mediterranean climate of the project area is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from many of the ocean breezes that keep the coastal regions moderate in temperature.

Most precipitation in the SVAB results from air masses that move in from the Pacific Ocean, usually from the west or northwest during the winter months. More than half the total annual precipitation falls during the winter rainy season (November–February); the average winter temperature is a moderate 49°F. Periods of dense and persistent low-level fog, which are most prevalent between storms, are common during the winter months in the SVAB. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry-land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. Poor air movement occurs most frequently in fall and winter when high-pressure cells are present over the project area and meteorological conditions are stable. The lack of surface winds during these periods, combined with the reduced vertical flow caused by less surface heating, reduces the influx of air and results in the concentration of pollutants. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May–October is ozone season in the SVAB, and is characterized by poor air movement in the mornings and the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen ( $\text{NO}_x$ ), which in turn result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, during approximately half of the time from July to September, a phenomenon known as the Schultz Eddy prevents this from occurring. The Schultz Eddy phenomenon causes the wind pattern to shift southward, blowing air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the air basin and contributes to violations of the ambient air quality standards.

The winds and unstable atmospheric conditions associated with the passage of winter storms result in periods of low air pollution and excellent visibility. Precipitation and fog tend to reduce or limit some pollutant concentrations. For instance, clouds and fog block sunlight, which is required to fuel photochemical reactions that form ozone. Because carbon monoxide (CO) is partially water soluble, precipitation and fog also tend to reduce concentrations of CO in the atmosphere. In addition, respirable particulate matter with an aerodynamic diameter of 10 micrometers or less ( $\text{PM}_{10}$ ) can be washed from the atmosphere through wet deposition processes, such as rain, snow, and fog. However, between winter storms, high pressure and light winds contribute to low-level temperature inversions and stable atmospheric conditions, resulting in the concentration of air pollutants (e.g., CO,  $\text{PM}_{10}$ ).

The local meteorology of the project area is represented by measurements recorded at the Auburn station. The normal annual precipitation, which occurs primarily from November through March, is approximately 35 inches. January temperatures range from a normal minimum of 35.9°F to a normal maximum of 54.1°F. July temperatures range from a normal minimum of 61.5°F to a normal maximum of 92.3°F (NOAA 1992). The predominant wind direction and speed is from the south-southwest at 10 mph (ARB 1994).

## **9.1.2 EXISTING AIR QUALITY—CRITERIA AIR POLLUTANTS**

Concentrations of several air pollutants—ozone, CO, nitrogen dioxide ( $\text{NO}_2$ ), sulfur dioxide ( $\text{SO}_2$ ), respirable and fine particulate matter ( $\text{PM}_{10}$  and  $\text{PM}_{2.5}$ ), and lead—are used as indicators of ambient air quality conditions. These pollutants are commonly referred to as “criteria air pollutants” because they are the most prevalent air pollutants known to be deleterious to human health, and extensive documentation is available on the health-effects criteria for these pollutants.

Source types, health effects, and future trends associated with each air pollutant are described below along with the most current attainment area designations and monitoring data for the project area and vicinity.

### **OZONE**

Ozone is a photochemical oxidant, a substance whose oxygen combines chemically with another substance in the presence of sunlight, and the primary component of smog. Ozone is not directly emitted into the air, but is formed through complex chemical reactions between precursor emissions of ROG and  $\text{NO}_x$  in the presence of sunlight. ROG are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels.  $\text{NO}_x$  are a group of gaseous compounds of nitrogen and oxygen that results from the combustion of fuels.

A highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high ROG and  $\text{NO}_x$  levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional scale, ozone is a regional pollutant.

Ozone located in the upper atmosphere (stratosphere) acts in a beneficial manner by shielding the earth from harmful ultraviolet radiation that is emitted by the sun. However, ozone located in the lower atmosphere (troposphere) is a major health and environmental concern. Meteorology and terrain play a major role in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and clear skies provide the optimum conditions for formation. As a result, summer is generally the peak ozone season. Because of the reaction time involved, peak ozone concentrations often occur far downwind of the precursor emissions. In general, ozone concentrations over or near urban and rural areas reflect an interplay of emissions of ozone precursors, transport, meteorology, and atmospheric chemistry (Godish 2004).

The adverse health effects associated with exposure to ozone pertain primarily to the respiratory system. Scientific evidence indicates that ambient levels of ozone affect not only sensitive receptors, such as asthmatics and children, but healthy adults as well. Exposure to ambient levels of ozone ranging from 0.10 part per million (ppm) to 0.40 ppm for 1–2 hours has been found to significantly alter lung functions by increasing respiratory rates and pulmonary resistance, decreasing tidal volumes (the amount of air inhaled and exhaled), and impairing respiratory mechanics. Ambient levels of ozone above 0.12 ppm are linked to such symptoms as throat dryness, chest tightness, headache, and nausea. In addition to the above adverse health effects, evidence exists relating ozone exposure to an increase in the permeability of respiratory epithelia; such increased permeability leads to an increased response of the respiratory system to challenges, and a decrease in the immune system's ability to defend against infection (Godish 2004).

Emissions of the ozone precursors ROG and NO<sub>x</sub> have decreased over the past several years because of more stringent motor vehicle standards and cleaner burning fuels. The ozone problem in the SVAB ranks among the most severe in the state. Peak levels have not declined as much as the number of days that standards are exceeded. From 1990 to 2006, the maximum peak 8-hour indicator decreased by 12%. The numbers of state and national 8-hour exceedance days have declined by 43% and 40%, respectively. Most of this progress has occurred since 2003. However, the numbers of exceedance days in 2005 and 2006 were among the lowest in this 17-year period (ARB 2007). Data from 2005 showing the trend in 3-year averages of 8-hour ozone data indicate that only the northern portion of the SVAB now attains the federal 8-hour ozone standard (ARB 2007).

## **Carbon Monoxide**

CO is a colorless, odorless, and poisonous gas produced by incomplete burning of carbon in fuels, primarily from mobile (transportation) sources. In fact, 77% of the nationwide CO emissions are from mobile sources. The other 23% consists of CO emissions from wood-burning stoves, incinerators, and industrial sources.

CO enters the bloodstream through the lungs by combining with hemoglobin, which normally supplies oxygen to the cells. However, CO combines with hemoglobin much more readily than oxygen does, resulting in a drastic reduction in the amount of oxygen available to the cells. Adverse health effects associated with exposure to CO concentrations include such symptoms as dizziness, headaches, and fatigue. CO exposure is especially harmful to individuals who suffer from cardiovascular and respiratory diseases (EPA 2008a).

The highest CO concentrations are generally associated with cold, stagnant weather conditions that occur during the winter. In contrast to problems caused by ozone, which tends to be a regional pollutant, CO problems tend to be localized.

## **Nitrogen Dioxide**

NO<sub>2</sub> is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO<sub>2</sub> are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO<sub>2</sub> (EPA 2008a). The combined emissions of NO and NO<sub>2</sub> are referred to as NO<sub>x</sub> and reported as equivalent NO<sub>2</sub>. Because NO<sub>2</sub> is formed and depleted by reactions associated with photochemical

smog (ozone), the NO<sub>2</sub> concentration in a particular geographical area may not be representative of the local NO<sub>x</sub> emission sources.

Inhalation is the most common route of exposure to NO<sub>2</sub>. Because NO<sub>2</sub> has relatively low solubility in water, the principal site of toxicity is in the lower respiratory tract. The severity of the adverse health effects depends primarily on the concentration inhaled rather than the duration of exposure. An individual may experience a variety of acute symptoms such as coughing, difficulty with breathing, vomiting, headache, and eye irritation during or shortly after exposure. After a period of approximately 4–12 hours, an exposed individual may experience chemical pneumonitis or pulmonary edema with breathing abnormalities, cough, cyanosis, chest pain, and rapid heartbeat. Severe, symptomatic NO<sub>2</sub> intoxication after acute exposure has occasionally been linked with prolonged respiratory impairment with such symptoms as chronic bronchitis and decreased lung function (EPA 2008a).

## **Sulfur Dioxide**

SO<sub>2</sub> is produced by such stationary sources as coal and oil combustion, steel mills, refineries, and pulp and paper mills. The major adverse health effects associated with SO<sub>2</sub> exposure pertain to the upper respiratory tract. SO<sub>2</sub> is a respiratory irritant; constriction of the bronchioles occurs with inhalation of SO<sub>2</sub> at 5 ppm or more. On contact with the moist mucous membranes, SO<sub>2</sub> produces sulfurous acid, which is a direct irritant. Concentration rather than duration of exposure is an important determinant of respiratory effects. Exposure to high SO<sub>2</sub> concentrations may result in edema of the lungs or glottis and respiratory paralysis.

## **Particulate Matter**

Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM<sub>10</sub>. PM<sub>10</sub> consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources; construction operations; fires and natural windblown dust; and particulate matter formed in the atmosphere by condensation and/or transformation of SO<sub>2</sub> and ROG (EPA 2008a). Fine particulate matter (PM<sub>2.5</sub>) is a subgroup of PM<sub>10</sub>, consisting of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less (ARB 2007).

The adverse health effects associated with PM<sub>10</sub> depend on the specific composition of the particulate matter. For example, health effects may be associated with metals, polycyclic aromatic hydrocarbons (PAH), and other toxic substances adsorbed onto fine particulate matter (referred to as the “piggybacking effect”), or with fine dust particles of silica or asbestos. Generally, effects may result from both short-term and long-term exposure to elevated concentrations of PM<sub>10</sub> and may include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, alterations to the immune system, carcinogenesis, and premature death (EPA 2008a). PM<sub>2.5</sub> poses an increased health risk because the particles can deposit deep in the lungs and may contain substances that are particularly harmful to human health.

Direct emissions of PM<sub>10</sub> increased in the SVAB from 1975 and 2005 and are projected to increase through 2020. PM<sub>10</sub> emissions in the SVAB are dominated by emissions from areawide sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, dust from farming operations, fugitive dust from construction and demolition, and residential fuel combustion. Annual average PM<sub>2.5</sub> concentrations in the SVAB remained relatively steady from 1975 through 2005 and are projected to increase slightly through 2020; by contrast, annual average concentrations of PM<sub>2.5</sub> in California decreased slightly from 1999 through 2005, with more significant drops in 2001 and 2003. The trends are different because of differences in state and national monitoring methods (e.g., measurement techniques and averaging times). PM<sub>2.5</sub> emissions in the SVAB are dominated by emissions from the same areawide sources as PM<sub>10</sub> (ARB 2007).



## Lead

Lead is a metal found naturally in the environment and in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline (discussed in detail below), metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. Environmental Protection Agency (EPA) set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. EPA banned the use of leaded gasoline in highway vehicles in December 1995 (EPA 2008a).

As a result of EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector have declined dramatically (95% between 1980 and 1999), and levels of lead in the air decreased by 94% between 1980 and 1999. Transportation sources, primarily airplanes, now contribute only 13% of lead emissions. A National Health and Nutrition Examination Survey reported a 78% decrease in the levels of lead in people's blood between 1976 and 1991. This dramatic decline can be attributed to the move from leaded to unleaded gasoline (EPA 2008a).

The decrease in lead emissions and ambient lead concentrations over the past 25 years is California's most dramatic success story with regard to air quality management. The rapid decrease in lead concentrations can be attributed primarily to phasing out the lead in gasoline. This phase-out began during the 1970s, and subsequent California Air Resources Board (ARB) regulations have virtually eliminated all lead from gasoline now sold in California. All areas of the state are currently designated as in attainment for the state lead standard (EPA does not designate areas for the national lead standard). Although the ambient lead standards are no longer violated, lead emissions from stationary sources still pose "hot spot" problems in some areas. As a result, ARB identified lead as a TAC.

## MONITORING STATION DATA AND ATTAINMENT AREA DESIGNATIONS

Concentrations of criteria air pollutants are measured at several monitoring stations in the SVAB. The Auburn–Dewitt C Avenue and Roseville–North Sunrise Avenue stations are the closest to the project area with recent data for ozone, NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. Table 9-1 summarizes the air quality data from these stations for the most recent 3 years.

Both ARB and EPA use this type of monitoring data to designate areas according to attainment status for criteria air pollutants published by the agencies. The purpose of these designations is to identify areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are "nonattainment," "attainment," and "unclassified." The "unclassified" designation is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of the nonattainment designation, called "nonattainment-transitional." The nonattainment-transitional designation is given to nonattainment areas that are progressing and nearing attainment. The most recent attainment designations with respect to the Placer County portion of the SVAB are shown in Table 9-2 for each criteria air pollutant.

## EMISSIONS INVENTORY

Mobile sources are the largest contributor to the estimated annual average levels of ROG, CO, and NO<sub>x</sub> in Placer County, accounting for approximately 58%, 69%, and 87%, respectively, of the total emissions. Areawide sources account for approximately 87% and 76% of the county's PM<sub>10</sub> and PM<sub>2.5</sub> emissions, respectively. Stationary and mobile sources account for approximately 15% and 61%, respectively, of the County's emissions of oxides of sulfur (SO<sub>x</sub>) (ARB 2008a).

**Table 9-1  
Summary of Annual Ambient Air Quality Data (2004–2006)**

	2004	2005	2006
<b>OZONE</b>			
<b>Auburn—Dewitt C Avenue Monitoring Station</b>			
Maximum concentration (1-hour/8-hour average, ppm)	0.118/0.101	0.120/0.107	0.129/0.114
Number of days state standard exceeded (1-hour)	14	11	25
Number of days national 1-hour/8-hour standard exceeded	0/12	0/10	1/29
<b>CARBON MONOXIDE (CO)</b>			
<b>Roseville—North Sunrise Avenue Monitoring Station</b>			
Maximum concentration (1-hour/8-hour average, ppm)	2.6/1.93	2.0/1.27	—
Number of days state standard exceeded (8-hour)	0	0	—
Number of days national standard exceeded (1-hour/8-hour)	0/0	0/0	—
<b>NITROGEN DIOXIDE (NO<sub>2</sub>)</b>			
<b>Roseville—North Sunrise Avenue Monitoring Station</b>			
Maximum concentration (1-hour average, ppm)	0.067	0.079	0.063
Number of days state standard exceeded	0	0	0
Annual average (ppm)	0.013	0.013	0.013
<b>FINE PARTICULATE MATTER (PM<sub>2.5</sub>)</b>			
<b>Roseville—North Sunrise Avenue Monitoring Station</b>			
Maximum concentration (µg/m <sup>3</sup> ) <sup>1</sup>	47.8	59.2	54.10
Number of days national standard exceeded (measured <sup>2</sup> )	0	0	0
<b>RESPIRABLE PARTICULATE MATTER (PM<sub>10</sub>)</b>			
<b>Roseville—North Sunrise Avenue Monitoring Station</b>			
Maximum concentration (µg/m <sup>3</sup> )	43.0	58.0	55.0
Number of days state standard exceeded (measured/calculated <sup>2</sup> )	0/0	1/5.8	1/5.8
Number of days national standard exceeded (measured/calculated <sup>2</sup> )	0/0	0/0	0/0
Notes: µg/m <sup>3</sup> = micrograms per cubic meter; ppm = parts per million; — = data not available <sup>1</sup> State and national statistics may differ for the following reasons: State statistics are based on California-approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers. State statistics are based on local conditions while national statistics are based on standard conditions. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria. <sup>2</sup> Measured days are those days that an actual measurement was greater than the level of the state daily standard or the national daily standard. Measurements are typically collected every 6 days. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Sources: ARB 2008b, EPA 2008b			

**Table 9-2  
Summary of Ambient Air Quality Standards and Western Placer County Designations**

Pollutant	Averaging Time	California		National Standards <sup>1</sup>		
		Standards <sup>2,3</sup>	Attainment Status <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Attainment Status <sup>7</sup>
Ozone	1-hour	0.09 ppm (180 µg/m <sup>3</sup> )	N (Serious)	–	–	–
	8-hour	0.07 ppm (137 µg/m <sup>3</sup> )	–	0.08 ppm (157 µg/m <sup>3</sup> )	Same as Primary Standard	N (Serious)
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m <sup>3</sup> )	A	35 ppm (40 mg/m <sup>3</sup> )	–	U/A
	8-hour	9 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )		
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>8</sup>	Annual Arithmetic Mean	0.030 ppm (56 µg/m <sup>3</sup> )	–	0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	U/A
	1-hour	0.18 ppm (338 µg/m <sup>3</sup> )	A	–		–
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	–	–	0.030 ppm (80 µg/m <sup>3</sup> )	–	U
	24-hour	0.04 ppm (105 µg/m <sup>3</sup> )	A	0.14 ppm (365 µg/m <sup>3</sup> )	–	
	3-hour	–	–	–	0.5 ppm (1300 µg/m <sup>3</sup> )	
	1-hour	0.25 ppm (655 µg/m <sup>3</sup> )	A	–	–	–
Respirable Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	N	–	Same as Primary Standard	A
	24-hour	50 µg/m <sup>3</sup>		150 µg/m <sup>3</sup>		
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	N	15 µg/m <sup>3</sup>	Same as Primary Standard	U
	24-hour	–	–	35 µg/m <sup>3</sup>		
Lead <sup>9</sup>	30-day Average	1.5 µg/m <sup>3</sup>	A	–	–	–
	Calendar Quarter	–	–	1.5 µg/m <sup>3</sup>	Same as Primary Standard	
Sulfates	24-hour	25 µg/m <sup>3</sup>	A	No National Standards		
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m <sup>3</sup> )	U			
Vinyl Chloride <sup>9</sup>	24-hour	0.01 ppm (26 µg/m <sup>3</sup> )	U/A			

**Table 9-2  
Summary of Ambient Air Quality Standards and Western Placer County Designations**

Pollutant	Averaging Time	California		National Standards <sup>1</sup>		
		Standards <sup>2,3</sup>	Attainment Status <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Attainment Status <sup>7</sup>
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more (0.07—30 miles or more for Lake Tahoe) because of particles when the relative humidity is less than 70%.	U	No National Standards		

Notes:  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter; ppm = parts per million

<sup>1</sup> National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The  $\text{PM}_{10}$  24-hour standard is attained when 99% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. The  $\text{PM}_{2.5}$  24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency for further clarification and current federal policies.

<sup>2</sup> California standards for ozone, CO (except Lake Tahoe),  $\text{SO}_2$  (1- and 24-hour),  $\text{NO}_2$ , particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>3</sup> Concentration expressed first in units in which it was issued (i.e., parts per million [ppm] or micrograms per cubic meter [ $\mu\text{g}/\text{m}^3$ ]). Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

<sup>4</sup> Unclassified (U): The data are incomplete and do not support a designation of attainment or nonattainment.

Attainment (A): The state standard for that pollutant was not violated at any site in the area during a 3-year period.

Nonattainment (N): There was at least one violation of a state standard for that pollutant in the area.

Nonattainment/Transitional (NT) (a subcategory of the nonattainment designation): The area is close to attaining the standard for that pollutant.

<sup>5</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

<sup>6</sup> National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>7</sup> Nonattainment (N): Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.

Attainment (A): Any area that meets the national primary or secondary ambient air quality standard for the pollutant.

Unclassifiable (U): Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

<sup>8</sup> On February 19, 2008, the Office of Administrative Law approved a new  $\text{NO}_2$  ambient air quality standard, which lowers the 1-hour standard to 0.19 ppm and establishes a new annual standard of 0.030 ppm. These changes became effective March 20, 2008.

<sup>9</sup> ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Sources: ARB 2008c, 2008d; EPA 2008c

### 9.1.3 EXISTING AIR QUALITY—TOXIC AIR CONTAMINANTS

Concentrations of TACs, or in federal parlance, hazardous air pollutants (HAPs), are also used as indicators of ambient-air-quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

According to the *California Almanac of Emissions and Air Quality* (ARB 2007), most of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (diesel PM). Diesel PM differs from other TACs in that it is not a single substance, but a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and presence or absence of an emission control system.

Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, ARB has made preliminary estimates of concentrations based on a PM exposure method. This method uses the ARB emissions inventory's PM<sub>10</sub> database, ambient PM<sub>10</sub> monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Diesel PM poses the greatest health risk among these 10 TACs. Based on receptor modeling techniques, ARB estimated the diesel PM health risk in the SVAB in 2000 to be 360 excess cancer cases per million people. The health risk of diesel PM in the SVAB has been reduced by 52% since 1990. In that time, levels of all TACs except para-dichlorobenzene, acetaldehyde and formaldehyde have declined (ARB 2007).

According to ARB's Community Health Air Pollution Information System, no major stationary sources of TACs are located within 2 miles of the project area (ARB 2008e, 2008f). Vehicles on Garden Bar Road, Mt. Pleasant Road, Mt. Vernon Road, and other roads in the vicinity are sources of diesel PM and other TACs associated with vehicle exhaust.

#### NATURALLY OCCURRING ASBESTOS

Naturally occurring asbestos may be found in at least 44 of California's 58 counties. Asbestos is the name for a group of naturally occurring silicate minerals. Exposure to asbestos may result in inhalation or ingestion of asbestos fibers, which over time may result in damage to the lungs or membranes that cover the lungs, leading to illness or even death.

Naturally occurring asbestos, often found in serpentine rock formations, is present in several foothill areas of the county. When material containing naturally occurring asbestos is disturbed, asbestos fibers may be released and become airborne, thereby creating a potential health hazard.

The California Geological Survey has recently developed an enhanced 1:1,000,000 scale map that has improved the overall identification of locations in the county. The map denotes areas of the county that are more or less likely to contain naturally occurring asbestos, based on available soil and geologic studies and some field verification. Where an area is characterized as having a lower overall probability of presence of naturally occurring asbestos, the likelihood of presence is slight, but in some instances naturally occurring asbestos might be found within such an area. Similarly, a location in the area identified as being most likely to have naturally occurring asbestos may not contain it.

The California Geological Survey's map shows areas of higher probability for asbestos-containing rock within the broad zone of faults that follow the low foothills and lie in a southeast-to-northwest band (Higgins and Clinkenbeard 2006). The communities of Auburn, Colfax, Meadow Vista, and Foresthill are among those that are within this fault band. Generally, there are no areas of high probability of occurrence of naturally occurring asbestos in areas of the county west of Folsom Lake or south of Wise Road. The communities of Roseville, Granite Bay, Rocklin, Lincoln, Loomis, Penryn, and Newcastle lie within geologic areas that have a lower probability for the presence of naturally occurring asbestos. There are some isolated areas of higher probability of presence of naturally occurring asbestos within the Tahoe National Forest.

Deposits of naturally occurring asbestos have been found in rock other than ultramafic and serpentine rock; for example, deposits have been found in metavolcanic rocks such as the Copper Hill Volcanics in the Folsom vicinity. Metavolcanic rock formations are prevalent to the northeast, north, and west of Auburn. Finally, in areas of sedimentary or alluvial rock deposits like those in western Placer County, it is possible that analytically detectable naturally occurring asbestos may be found.

According to *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County, California* (Higgins and Clinkenbeard 2006) and *A General Location Guide for Ultramafic Rocks in California—Areas More Likely to Contain Naturally Occurring Asbestos* (Churchill and Hill 2000), the project area is located in an area that is moderately likely to contain naturally occurring asbestos.

#### **9.1.4 EXISTING AIR QUALITY—ODORS**

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

The human nose is the sole sensing device for odors. The ability to detect odors varies considerably among the population and is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may be sensitive to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person (e.g., an odor from a fast food restaurant) may be perfectly acceptable to another. It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition occurs only with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the odor is quite difficult to detect or recognize. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

There are no notable sources of disagreeable odors in the vicinity of the project area.

#### **9.1.5 EXISTING AIR QUALITY—GREENHOUSE GASES AND GLOBAL CLIMATE CHANGE**

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space.

This absorbed radiation is then emitted from the earth, not as high-frequency solar radiation, but as lower frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency (longer wavelength) radiation. Most solar radiation passes through GHGs; however, GHGs have strong absorption properties in wavelength bands along the electromagnetic spectrum where the atmosphere, in its natural composition, does not. This range of absorption spectra (from wavelengths of 8–13 micrometers) is known as the “infrared atmospheric window” region of the electromagnetic spectrum, where infrared radiation is selectively absorbed by GHGs. As a result, radiation that otherwise would have escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the “greenhouse effect,” is responsible for maintaining a habitable climate on the earth. Without the greenhouse effect, the planet would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), ozone, nitrous oxide (N<sub>2</sub>O), and fluorinated compounds. Human-caused emissions of these GHGs exceeding natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the earth’s climate, known as global climate change or global warming (Ahrens 2003). It is extremely unlikely that global climate change of the past 50 years can be explained without the contribution from human activities (IPCC 2007).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule depends on multiple variables and cannot be pinpointed, it is understood that more CO<sub>2</sub> is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO<sub>2</sub> emissions, approximately 54% is sequestered through ocean uptake, uptake by forest regrowth in the Northern Hemisphere, and other terrestrial sinks within a year, whereas the remaining 46% of human-caused CO<sub>2</sub> emissions remains stored in the atmosphere (Seinfeld and Pandis 1998).

Similarly, impacts of GHGs are borne globally, as opposed to localized air quality effects of criteria air pollutants and TACs. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; suffice it to say, the quantity is enormous, and no single project alone would be expected to measurably contribute to a noticeable incremental change in the global average temperature, or to the global, local, or micro climates.

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (CEC 2006a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (CEC 2006a). Emissions of CO<sub>2</sub> are byproducts of fossil fuel combustion. CH<sub>4</sub>, a highly potent GHG, results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) largely associated with agricultural practices and landfills. CO<sub>2</sub> sinks, or reservoirs, include vegetation and the ocean, which absorb CO<sub>2</sub> through photosynthesis and dissolution, respectively, two of the most common processes of CO<sub>2</sub> sequestration.

California is the 12th to 16th largest emitter of CO<sub>2</sub> when compared to the nations of the world (CEC 2006a). California produced 484 million gross metric tons of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) in 2004. CO<sub>2</sub>e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP) of a GHG, depends on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, as described in Appendix D, “Calculation References,” of the *California Climate Action Registry General Reporting Protocol* (CCAR 2008), 1 ton of CH<sub>4</sub> has the same contribution to the greenhouse effect as approximately 23 tons of CO<sub>2</sub>. Therefore, CH<sub>4</sub> is a much more potent GHG than CO<sub>2</sub>. Expressing emissions in CO<sub>2</sub>e takes the contributions of

all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO<sub>2</sub> were being emitted.

Combustion of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2004, accounting for 41% of total GHG emissions in the state (CEC 2006a). This sector was followed by the electric power sector (including both in-state and out-of-state sources) (22%) and the industrial sector (21%) (CEC 2006a).

Climate change has the potential to affect many resources, including through sea level rise. Sea level rose approximately 7 inches during the last century (CEC 2006b), and it is predicted to rise an additional 7–23 inches by 2100, depending on the future levels of GHG emissions (IPCC 2007). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion (especially a concern in the low-lying Delta, where pumps delivering potable water could be threatened), and disruption of wetlands (CEC 2006b). As the existing climate throughout California changes over time, the ranges of various plant and wildlife species could shift or be reduced, depending on the favored temperature and moisture regimes of each species. In the worst cases, some species would become extinct or be extirpated from the state if suitable conditions are no longer available. Additional concerns associated with climate change are a reduction in the snowpack, which would lead to less overall water storage in the mountains (the largest “reservoir” in the state), and increased risk of wildfire because of changes in rainfall and plant community makeup.

## **9.2 REGULATORY SETTING**

Air quality in Placer County is regulated by EPA, ARB, PCAPCD, and the County. Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent.

### **9.2.1 CRITERIA AIR POLLUTANTS**

#### **FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS**

EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress were in 1990.

The CAA required EPA to establish national ambient air quality standards (NAAQS). As shown in Table 9-2, EPA has established primary and secondary NAAQS for ozone, CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. The primary standards protect the public health and the secondary standards protect public welfare. The CAA also required each state to prepare an air quality control plan referred to as a state implementation plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies. EPA must review all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and to determine whether implementing them will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may cause sanctions to be applied to transportation funding and stationary air pollution sources in the air basin.

#### **STATE PLANS, POLICIES, REGULATIONS, AND LAWS**

ARB is responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required



ARB to establish California ambient air quality standards (CAAQS) (Table 9-2). ARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that local air districts should focus particular attention on reducing the emissions from transportation and areawide emission sources, and provides districts with the authority to regulate indirect sources.

Among ARB's other responsibilities are overseeing local air districts' compliance with California and federal laws, approving local air quality plans, submitting SIPs to EPA, monitoring air quality, determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels. There are 15 nonattainment areas for the national ozone standard and two nonattainment areas for the PM<sub>2.5</sub> standard. The Ozone SIP and PM<sub>2.5</sub> SIP were due to EPA by June 2007 and April 2008, respectively. The SIP must show how each area will attain the federal standards. To do this, the SIP identifies the amount of pollution emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions.

ARB and local air pollution control districts are currently developing plans for meeting new national air quality standards for ozone and PM<sub>2.5</sub>. The draft statewide air quality plan was released in April 2007 (ARB 2008g).

## **LOCAL PLANS, POLICIES, REGULATIONS, AND LAWS**

### **Placer County Air Pollution Control District**

PCAPCD attains and maintains air quality conditions in Placer County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean-air strategy of PCAPCD includes the preparation of plans and programs for the attainment of ambient air-quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. PCAPCD also inspects stationary sources of air pollution, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the CAA, CAAA, and CCAA. Air quality plans applicable to the proposed project are discussed below.

#### ***Air Quality Plans***

PCAPCD in coordination with the air quality management districts and air pollution control districts of El Dorado, Sacramento, Solano, Sutter, and Yolo Counties prepared and submitted the 1991 *Air Quality Attainment Plan* (AQAP) in compliance with the requirements set forth in the CCAA, which specifically addressed the nonattainment status for ozone and, to a lesser extent, CO and PM<sub>10</sub>. The CCAA also requires a triennial assessment of the extent of air quality improvements and emission reductions achieved through the use of control measures. As part of the assessment, the attainment plan must be reviewed and, if necessary, revised to correct for deficiencies in progress and to incorporate new data or projections. The requirement of the CCAA for a first triennial progress report and revision of the 1991 AQAP was fulfilled with the preparation and adoption of the 1994 *Ozone Attainment Plan* (OAP). The OAP stresses attainment of ozone standards and focuses on strategies for reducing ROG and NO<sub>x</sub>. It promotes active public involvement, enforcement of compliance with PCAPCD rules and regulations, public education in both the public and private sectors, development and promotion of transportation and land use programs designed to reduce vehicle miles traveled (VMT) within the region, and implementation of control measures for stationary and mobile sources. The OAP became part of the SIP in

accordance with the requirements of the CAAA and amended the 1991 AQAP. However, at that time the region could not show that the national ozone (1-hour) standard would be met by 1999. In exchange for moving the deadline to 2005, the region accepted a designation of “severe nonattainment” coupled with additional emissions requirements on stationary sources. Additional triennial reports were also prepared in 1997, 2000, and 2003 in compliance with the CCAA that act as incremental updates.

As a nonattainment area, the region is also required to submit rate-of-progress milestone evaluations in accordance with the CAAA. Milestone reports were prepared for 1996, 1999, 2002, and most recently in 2006 for the 8-hour ozone standard. These milestone reports include compliance demonstrations that the requirements have been met for the Sacramento nonattainment area. The AQAPs and reports present comprehensive strategies to reduce emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub> from stationary, area, mobile, and indirect sources. Such strategies include the adoption of rules and regulations; enhancement of CEQA participation; implementation of a new and modified indirect-source review program; adoption of local air quality plans; and control measures for stationary, mobile, and indirect sources.

The Sacramento region was classified by EPA as a “serious” nonattainment area on June 15, 2004, for the national 8-hour ozone standard with an attainment deadline of June 15, 2013. Emission reduction needs to achieve the air quality standard were identified using an air quality modeling analysis. An evaluation of proposed new control measures and associated VOC and NO<sub>x</sub> emission reductions concluded that no set of feasible controls were available to provide the needed emission reductions before the attainment deadline year. Given the magnitude of the shortfall in emission reductions, and the schedule for implementing new control measures, the earliest possible attainment demonstration year for the Sacramento region is determined to be the “severe” area deadline of 2019.

Section 181(b)(3) of the CAA permits a state to request that EPA reclassify a nonattainment area to a higher classification and extend the time allowed for attainment. This process is appropriate for areas that must rely on longer-term strategies to achieve the emission reductions needed for attainment.

The Board of Director’s for each of the five air districts (including PCAPCD) which comprises the Sacramento Federal Nonattainment Area (SFNA) requested that ARB submit a formal request for voluntary reclassification from a “serious” to a “severe” for the 8-hour ozone nonattainment area with an associated attainment deadline of June 15, 2019. ARB submitted that request on February 14, 2008.

On March 24, 2008, EPA published in the Federal Register a finding of Failure to Submit the 2011 Reasonable Further Progress Plan for the SFNA in the Federal Register. The Failure to Submit finding triggered sanctions clocks, which include:

1. **Offset sanctions:** More stringent emission mitigation requirements for new and modified businesses, “major stationary sources” if a complete plan is not submitted within 18 months after EPA findings of failure to submit the plan.
2. **Federal Highway funding sanctions:** Prohibiting transportation projects from receiving federal transportation funding if a complete plan is not submitted within 24 months after EPA findings.

The sanctions clocks will stop once the Air Districts (including PCAPCD) submit the 2011 Reasonable Further Progress Plan and the USEPA accepts the plan as complete. The *Sacramento Regional Nonattainment Area 8-Hour Attainment Demonstration Plan* is scheduled to be published at the end of September 2008 (SMAQMD 2008).

## **PCAPCD Rules**

As mentioned above, PCAPCD adopts rules and regulations. All projects are subject to PCAPCD rules and regulations in effect at the time of construction. The following specific rules are applicable to construction of the proposed project:

**Rule 202—Visible Emissions.** A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour which is as dark or darker in shade as that designated as number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

**Rule 205—Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause to have a natural tendency to cause injury or damage to business or property. The provisions of Rule 205 do not apply to odors emanating from agriculture operations necessary for the growing of crops or raising of fowl or animals.

**Rule 217—Cutback and Emulsified Asphalt Paving Materials.** A person shall not manufacture for sale nor use for paving, road construction, or road maintenance any: rapid cure cutback asphalt; slow cure cutback asphalt containing organic compounds which evaporate at 500°F or lower as determined by current American Society for Testing and Materials (ASTM) Method D402; medium cure cutback asphalt except as provided in Section 1.2; or emulsified asphalt containing organic compounds which evaporate at 500°F or lower as determined by current ASTM Method D244, in excess of 3% by volume.

**Rule 218—Application of Architectural Coatings.** No person shall manufacture, blend, or repackage for sale within PCAPCD; supply, sell, or offer for sale within PCAPCD; or solicit for application or apply within the PCAPCD, any architectural coating with a volatile organic carbon (VOC) content in excess of the corresponding specified manufacturer's maximum recommendation.

**Rule 228—Fugitive Dust.**

***Visible Emissions Not Allowed Beyond the Boundary Line:*** A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area (including disturbance as a result of the raising and/or keeping of animals or by vehicle use), such that the presence of such dust remains visible in the atmosphere beyond the boundary line of the emission source.

***Visible Emissions from Active Operations:*** In addition to the requirements of Rule 202, Visible Emissions, a person shall not cause or allow fugitive dust generated by active operations, an open storage pile, or a disturbed surface area, such that the fugitive dust is of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke as dark or darker in shade as that designated as number 2 on the Ringelmann Chart, as published by the United States Bureau of Mines.

***Concentration Limit:*** A person shall not cause or allow PM<sub>10</sub> levels to exceed 50 micrograms per cubic meter (µg/m<sup>3</sup>) (24-hour average) when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other EPA-approved equivalent method for PM<sub>10</sub> monitoring.

***Track-Out onto Paved Public Roadways:*** Visible roadway dust as a result of active operations, spillage from transport trucks, and the track-out of bulk material onto public paved roadways shall be minimized and removed.

The track-out of bulk material onto public paved roadways as a result of operations, or erosion, shall be minimized by the use of track-out and erosion control, minimization, and preventative measures, and removed

within 1 hour from adjacent streets such material any time track-out extends for a cumulative distance of greater than 50 feet onto any paved public road during active operations.

All visible roadway dust tracked out upon public paved roadways as a result of active operations shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. Wet sweeping or a High Efficiency Particulate Air (HEPA) filter–equipped vacuum device shall be used for roadway dust removal.

Any material tracked out, or carried by erosion, and clean-up water, shall be prevented from entering waterways or storm water inlets as required to comply water quality control requirements.

***Minimum Dust Control Requirements:*** The following dust mitigation measures are to be initiated at the start and maintained throughout the duration of the construction or grading activity, including any construction or grading for road construction or maintenance.

- ▶ Unpaved areas subject to vehicle traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered.
- ▶ The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust exceeding Ringelmann 2 or visible emissions from crossing the project boundary line.
- ▶ Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.
- ▶ Prior to any ground disturbance, including grading, excavating, and land clearing, sufficient water must be applied to the area to be disturbed to prevent emitting dust exceeding Ringelmann 2 and to minimize visible emissions from crossing the boundary line.
- ▶ Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site.
- ▶ When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures, grading and earthmoving operations shall be suspended.
- ▶ No trucks are allowed to transport excavated material off-site unless the trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments, and loads are either covered with tarps; or wetted and loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than 6 inches from the top and that no point of the load extends above the top of the cargo compartment.

***Wind-Driven Fugitive Dust Control:*** A person shall take action(s), such as surface stabilization, establishment of a vegetative cover, or paving, to minimize wind-driven dust from inactive disturbed surface areas.

**Rule 501—General Permit Requirement:** Any person operating an article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain a written permit from the Air Pollution Control Officer (APCO). Stationary sources subject to the requirements of Rule 507, Federal Operating Permit Program, must also obtain a Title V permit pursuant to the requirements and procedures of that rule.

## PLACER COUNTY

The following are relevant goals and policies identified by the *Placer County General Plan* (Placer County 1994) for air quality.

**GOAL 6.F:** To protect and improve air quality in Placer County.

- ▶ **Policy 6.F.1.** The County shall cooperate with other agencies to develop a consistent and effective approach to air quality planning and management.
- ▶ **Policy 6.F.2.** The County shall develop mitigation measures to minimize stationary source and area source emissions.
- ▶ **Policy 6.F.3.** The County shall support the PCAPCD in its development of improved ambient air quality monitoring capabilities and the establishment of standards, thresholds, and rules to more adequately address the air quality impacts of new development.
- ▶ **Policy 6.F.4.** The County shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality.
- ▶ **Policy 6.F.5.** The County shall encourage project proponents to consult early in the planning process with the County regarding the applicability of Countywide indirect and areawide source programs and transportation control measure (TCM) programs. Project review shall address energy-efficient building and site designs and proper storage, use, and disposal of hazardous materials.
- ▶ **Policy 6.F.6.** The County shall require project-level environmental review to include identification of potential air quality impacts and designation of design and other appropriate mitigation measures or offset fees to reduce impacts. The County shall dedicate staff to work with project proponents and other agencies in identifying, ensuring the implementation of, and monitoring the success of mitigation measures.
- ▶ **Policy 6.F.7.** The County shall encourage development to be located and designed to minimize direct and indirect air pollutants.
- ▶ **Policy 6.F.8.** The County shall submit development proposals to the PCAPCD for review and comment in compliance with CEQA prior to consideration by the appropriate decision-making body.
- ▶ **Policy 6.F.9.** In reviewing project applications, consider alternatives or amendments that reduce emissions of air pollutants.
- ▶ **Policy 6.F.10.** The County may require new development projects to submit an air quality analysis for review and approval. Based on this analysis, the County shall require appropriate mitigation measures consistent with the PCAPCD's 1991 Air Quality Attainment Plan (or updated edition).

**GOAL 6.G:** To integrate air quality planning with the land use and transportation planning process.

- ▶ **Policy 6.G.1.** The County shall require new development to be planned to result in smooth flowing traffic conditions for major roadways. This includes traffic signals and traffic signal coordination, parallel roadways, and intra- and inter-neighborhood connections where significant reductions in overall emissions can be achieved.
- ▶ **Policy 6.G.2.** The County shall continue and, where appropriate, expand the use of synchronized traffic signals on roadways susceptible to emissions improvement through approach control.

- ▶ **Policy 6.G.3.** The County shall encourage the use of alternative modes of transportation by incorporating public transit, bicycle, and pedestrian modes in County transportation planning and by requiring new development to provide adequate pedestrian and bikeway facilities.
- ▶ **Policy 6.G.4.** The County shall consider instituting disincentives for single-occupant vehicle trips, including limitations in parking supply in areas where alternative transportation modes are available and other measures identified by PCAPCD and incorporated into regional plans.
- ▶ **Policy 6.G.5.** The County shall endeavor to secure adequate funding for transit services so that transit is a viable transportation alternative. New development shall pay its fair share of the cost of transit equipment and facilities required to serve new projects.
- ▶ **Policy 6.G.6.** The County shall require large new developments to dedicate land for and construct appropriate improvements for park-and-ride lots, if suitably located.
- ▶ **Policy 6.G.7.** The County shall require stationary-source projects that generate significant amounts of air pollutants to incorporate air quality mitigation in their design.

## 9.2.2 TOXIC AIR CONTAMINANTS

Air quality regulations also focus on TACs. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts may not be expected to occur. This contrasts with the criteria air pollutants, for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 9-2). Instead, EPA and ARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology for toxics (MACT) or best available control technology for toxics (BACT) to limit emissions. These in conjunction with additional rules set forth by PCAPCD establish the regulatory framework for TACs.

### FEDERAL HAZARDOUS AIR POLLUTANT PROGRAMS

EPA has programs for identifying and regulating HAPs. Title III of the CAAA directed EPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP for major sources of HAPs may differ from those for area sources. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources.

The CAAA called on EPA to promulgate emissions standards in two phases. In the first phase (1992–2000), EPA developed technology-based emissions standards designed to reduce emissions as much as feasible. These standards are generally referred to as requiring MACT. For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), EPA is required to promulgate health risk–based emissions standards where deemed necessary to address risks remaining after implementation of the technology-based NESHAP standards.

The CAAA also required EPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions of, at a minimum, benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 of the CAAA required the use of reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to further reduce mobile-source emissions.

## STATE AND LOCAL PROGRAMS FOR TOXIC AIR CONTAMINANTS

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807 [Chapter 1047, Statutes of 1983]) and the Air Toxics Hot Spots Information and Assessment Act (AB 2588 [Chapter 1252, Statutes of 1987]). AB 1807 sets forth a formal procedure for ARB to designate substances as TACs. Research, public participation, and scientific peer review must occur before ARB can designate a substance as a TAC. To date, ARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, diesel PM was added to the ARB list of TACs.

Once a TAC is identified, ARB then adopts an airborne toxics control measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions; for example, the ATCM limits truck idling to 5 minutes (Title 13, Section 2485 of the California Code of Regulations [i.e., 13 CCR Section 2485]).

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

ARB has adopted control measures for diesel exhaust and more stringent emissions standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, ARB adopted a new rule for public-transit bus fleets and emissions standards for new urban buses. These new rules and standards include all of the following elements:

- ▶ more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines;
- ▶ zero-emission bus demonstration and purchase requirements applicable to transit agencies; and
- ▶ reporting requirements, under which transit agencies must demonstrate compliance with the public-transit bus fleet rule.

Recent and future milestones include the low-sulfur diesel fuel requirement and tighter emissions standards for heavy-duty diesel trucks (2007) and off-road diesel equipment (2011) nationwide. Over time, replacing older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1,3-butadiene, diesel PM) have been reduced significantly over the last decade, and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of ARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be reduced by 75% in 2010 and 85% in 2020 from the estimated year-2000 level. Adopted regulations are also expected to continue to reduce formaldehyde emissions from cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

*Air Quality and Land Use Handbook: A Community Health Perspective*, published by ARB, provides guidance on land use compatibility with sources of TACs (ARB 2005). The handbook is not a law or adopted policy but offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities, to help keep children and other sensitive populations out of harm's way.

State regulations on asbestos are related to demolition and renovations, and waste disposal of asbestos-containing materials. California also has a statewide regulation covering naturally occurring asbestos. The Asbestos ATCM for Asbestos-Containing Serpentine, adopted in 1990, prohibited the use of serpentine aggregate for surfacing if the asbestos content was 5% or more asbestos. The limit on asbestos content was lowered to 0.25% in 2000 and modified to include ultramafic rock.

In July 2001, ARB adopted an ATCM for construction, grading, quarrying, and surface mining operations that regulates grading and excavation activities in areas of serpentine or ultramafic rocks. In addition, the Governor's Office of Planning and Research issued a memorandum providing guidance to lead agencies in analyzing the impacts of naturally occurring asbestos during the CEQA review process.

At the local level, air pollution control or management districts may adopt and enforce ARB control measures. Under PCAPCD Rule 501 (General Permit Requirements), Rule 502 (New Source Review), and Rule 507 (Federal Operating Permit), all sources that possess the potential to emit TACs must obtain permits from the district. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new-source review standards and air toxics control measures. PCAPCD limits emissions and public exposure to TACs through a number of programs. The district prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors.

Sources that require a permit are analyzed by PCAPCD (e.g., through a health risk assessment) based on their potential to emit toxics. A health risk assessment is a tool used to determine the exposure of sensitive receptors to TAC emissions based on a 70-year exposure period. If it is determined that the project will emit toxics in excess of PCAPCD's threshold of significance for TACs, as identified below, sources have to implement the best available control technology for TACs (T-BACT) to reduce emissions. If a source cannot reduce the risk below the threshold of significance even after T-BACT has been implemented, PCAPCD will deny the permit required by the source. This helps to prevent new problems and reduces emissions from existing older sources by requiring them to apply new technology when retrofitting with respect to TACs. It is important to note that the air quality permitting process applies only to stationary sources; properties that may be exposed to elevated levels of TACs from nonstationary sources (e.g., vehicles) and the nonstationary sources themselves are not subject to this process or to any requirements of T-BACT implementation. Rather, emissions controls on nonstationary sources are subject to regulations implemented on the state and federal level.

PCAPCD also enforces ARB's Asbestos ATCM to control dust emissions and human exposure to the asbestos fibers found in serpentine and ultramafic rock (and soil derived from those substrates). The ATCM can be summarized as follows (ARB 2004): Large construction projects are required to prepare a dust mitigation plan and receive approval from the district before the start of the project. The plan must specify measures that will be taken to ensure that no visible dust crosses the property line and must address specific topics. The dust mitigation plan must address control of emissions from track-out, disturbed surface areas, storage piles, on-site vehicle traffic, off-site transport of material, and earthmoving activities. The plan must also address postconstruction stabilization and air monitoring (if required by the district). Table 1 of the Asbestos ATCM (not shown in this EIR) shows control options for the topics to be addressed in the asbestos dust mitigation plan for large construction projects. Many of these requirements would already be carried out by such projects to minimize nuisance dust complaints and protect water quality.

In addition, PCAPCD adopted a local dust control regulation in 2003 that goes beyond the state's measures by providing standards for the control of sources of fugitive dust, including dust from construction activities, and is not limited in applicability to areas where naturally occurring asbestos is found. In the identified areas of higher probability for the presence of naturally occurring asbestos, and where it or rock potentially containing it is known to be located, PCAPCD enforces the implementation of ARB's Asbestos ATCM.

### **9.2.3 ODORS**

PCAPCD has identified types of facilities that have been known to produce odors: wastewater treatment facilities, chemical manufacturing plants, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations. Because offensive odors rarely cause any physical harm and no requirements for their control are included in federal or state air quality regulations, PCAPCD has no rules or standards related to odor emissions



other than Rule 205 (Nuisance). Any actions related to odors are based on citizen complaints to local governments and PCAPCD.

Two situations increase the potential for odor problems. The first occurs when a new odor source is located near existing sensitive receptors. The second occurs when new sensitive receptors are developed near existing sources of odors. In the first situation, PCAPCD recommends operational changes, add-on controls, process changes, or buffer zones where feasible to address odor complaints. In the second situation, the potential conflict is considered significant if the plan area is at least as close as any other site that has already experienced significant odor problems related to the odor source. For projects being developed near a source of odors where there is no nearby development that may have filed complaints, and for odor sources being developed near existing sensitive receptors, PCAPCD recommends that the determination of potential conflict be based on the distance and frequency at which odor complaints from the public have occurred in the vicinity of a similar facility.

PCAPCD Rule 205 (Nuisance) addresses odor exposure and prohibits discharging air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public; that endanger the public's comfort, repose, health, or safety; or that cause or have a natural tendency to cause injury or damage to business or property.

#### **9.2.4 GREENHOUSE GAS EMISSIONS**

The U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* that CO<sub>2</sub> is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs. However, there are no federal regulations or policies regarding GHG emissions applicable to the proposed project at the time of writing.

Various statewide and local initiatives to reduce the state's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term. Because every nation emits GHGs and therefore makes an incremental cumulative contribution to global climate change, cooperation on a global scale will be required to reduce the rate of GHG emissions to a level that can help to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

#### **ASSEMBLY BILL 1493 (2002)**

In 2002, then-Governor Gray Davis signed AB 1493 (Chapter 200, Statutes of 2002) (amending Section 42823 of the Health and Safety Code and adding Section 43018.5 to the code). AB 1493 requires that ARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, in 2004 ARB approved amendments to the California Code of Regulations adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to 13 CCR Sections 1900 and 1961 and adoption of Section 1961.1 (13 CCR Section 1961.1) require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds [lb] that is designed primarily for the transportation of persons), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. For passenger cars and light-duty trucks with a loaded vehicle weight of 3,750 lb or less, the GHG emission limits for the 2016 model year are approximately 37% lower than the limits for the first year of the regulations, the 2009 model year. For light-duty trucks with loaded vehicle weight of 3,751 lb to gross vehicle weight of 8,500 lb, as

well as medium-duty passenger vehicles, GHG emissions are reduced approximately 24% between 2009 and 2016.

In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of 13 CCR Sections 1900 and 1961 as amended by AB 1493 and 13 CCR 1961.1 (*Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in Her Official Capacity as Executive Director of the California Air Resources Board, et al.* [456 F. Supp. 2d 1150, 1172 (E.D. Cal. 2006)]). The suit in the U.S. District Court for the Eastern District of California contended that California's implementation of regulations that, in effect, regulate vehicle fuel economy violates various federal laws, regulations, and policies.

In January 2007, the judge hearing the case accepted a request from the California Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court case, *Massachusetts, et al., v. Environmental Protection Agency, et al.*, the primary issue in question was whether the CAA provides authority for EPA to regulate CO<sub>2</sub> emissions. EPA contended that the CAA does not authorize regulation of CO<sub>2</sub> emissions, whereas Massachusetts and 10 other states, including California, sued EPA to begin regulating CO<sub>2</sub>. As mentioned above, the U.S. Supreme Court ruled on April 2, 2007, that GHGs are "air pollutants" as defined under the CAA and EPA is granted authority to regulate CO<sub>2</sub> (*Massachusetts v. U.S. Environmental Protection Agency* [2007] 549 U.S. 05-1120).

On December 12, 2007, the Court rejected the automakers' claim and ruled that if California receives appropriate authorization from EPA (the last remaining factor in enforcing the standard), these regulations would not be consistent with federal law. This authorization to implement more stringent standards in California was requested in the form of a CAA Section 209(b) waiver in 2005. Since that time, EPA failed to act in granting California authorization to implement the standards. Governor Arnold Schwarzenegger and Attorney General Edmund G. Brown Jr. filed suit against EPA for the delay. EPA denied California's request for the waiver to implement AB 1493 in late December 2007. The State of California has filed suit against EPA for its decision to deny the CAA waiver.

### **EXECUTIVE ORDER S-3-05 (2005)**

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada's snowpack, exacerbate California's air quality problems, and potentially cause a rise in sea level. To combat those concerns, the executive order established targets for total GHG emissions. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80% below the 1990 level by 2050.

The executive order directed the secretary of the California Environmental Protection Agency to coordinate a multiagency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and legislature describing: progress made toward reaching the emissions targets; impacts of global warming on California's resources; and mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the secretary of the California Environmental Protection Agency created the California Climate Action Team, made up of members of various state agencies and commissions. The California Climate Action Team released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses and actions by local governments and communities, as well as through state incentive and regulatory programs.

### **ASSEMBLY BILL 32 (2006), CALIFORNIA CLIMATE SOLUTIONS ACT**

In September 2006, Governor Arnold Schwarzenegger signed AB 32 (Chapter 488, Statutes of 2006), the California Global Warming Solutions Act, which enacted Sections 38500–38599 of the Health and Safety Code.

AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control GHG emissions from vehicles under the authorization of AB 32.

AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves the reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

## **SENATE BILL 97 (2007)**

Senate Bill (SB) 97, signed in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code, Section 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor's Office of Planning and Research to prepare, develop, and transmit to the California Resources Agency by July 1, 2009, guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA. The California Resources Agency is required to certify and adopt those guidelines by January 1, 2010. This bill also removes, both retroactively and prospectively, as legitimate causes of action in litigation any claim of inadequate CEQA analysis of effects of GHG emissions associated with environmental review for projects funded by the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006 (Proposition 1B) or the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1E). This provision will be repealed by operation of law on January 1, 2010; at that time such projects, if any remain unapproved, will no longer enjoy protection against litigation claims based on failure to adequately address issues related to climate change. This bill would only protect a handful of public agencies from CEQA challenges on certain types of projects for a few years time.

There are no local laws, regulations, or policies pertaining to GHG emissions.

## **9.3 IMPACTS**

### **9.3.1 ANALYSIS METHODOLOGY**

Methodologies recommended by PCAPCD were used to assess short-term (construction-related) and long-term regional and local (operational) impacts on air quality; impacts from TACs and odors; and short-term emissions of criteria air pollutants (e.g., particulate matter) and ozone precursors (e.g., ROG and NO<sub>x</sub>) generated by project construction. Where quantification was required, emissions from project construction were modeled using the ARB-approved URBEMIS 2007 Version 9.2.4 computer program (Rimpo and Associates 2008) as recommended by PCAPCD. URBEMIS incorporates ARB's EMFAC2007 model for on-road vehicle emissions and the OFFROAD2007 model for off-road vehicle emissions. URBEMIS is designed to model construction emissions for land use development projects and allows for the input of project-specific information. Exact project-specific data (e.g., required types and numbers of construction equipment and maximum daily acreage disturbed) were not available at the time of this analysis. General information provided in the project description (see Chapter 3.0 of this EIR) and default URBEMIS settings were used to generate a reasonable worst-case estimate of project-generated emissions.

Regional emissions of criteria air pollutants and ozone precursors generated by area and mobile sources associated with the proposed project were also modeled using URBEMIS. URBEMIS allows land use selections

that include project location specifics and trip generation rates. URBEMIS accounts for mobile-source emissions associated with vehicle trip generation. Project-generated emissions were modeled based on general information provided in the project description and trip generation from the transportation analysis prepared for this project (see Chapter 3.0, “Project Description,” and Chapter 8.0, “Transportation and Circulation,” of this EIR).

Long-term (operational), local CO impacts were evaluated in accordance with PCAPCD guidance.

PCAPCD has not adopted a methodology for analyzing short-term construction-related emissions of TACs and/or the exposure thereof. Therefore, emissions of TACs associated with project construction were assessed in a qualitative manner.

Determinations of significance for construction-related and operational emissions were based on the comparison of project-generated emissions to applicable PCAPCD thresholds.

Other air quality impacts (e.g., odors) were assessed in accordance with methodologies recommended by ARB and/or PCAPCD.

Project-generated construction- and operation-related emissions of GHGs were calculated using URBEMIS.

### **9.3.2 THRESHOLDS OF SIGNIFICANCE**

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on air quality if it would:

- ▶ conflict with or obstruct implementation of the applicable air quality plan,
- ▶ violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- ▶ result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable NAAQS or CAAQS (including releasing emissions that exceed quantitative thresholds for ozone precursors),
- ▶ expose sensitive receptors to substantial pollutant concentrations, or
- ▶ create objectionable odors affecting a substantial number of people.

As stated in the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. Thus, the proposed project would result in a potentially significant impact on air quality if:

- ▶ short-term construction-related emissions of ROG, NO<sub>x</sub>, or PM<sub>10</sub> would exceed the PCAPCD-recommended mass emissions threshold of 82 pounds per day (lb/day);
- ▶ long-term, operational (regional) emissions of ROG, NO<sub>x</sub>, or PM<sub>10</sub> would exceed the PCAPCD-recommended mass emissions threshold of 82 lb/day;
- ▶ long-term, operational emissions of ROG and NO<sub>x</sub> would exceed the PCAPCD-recommended cumulative mass emissions threshold of 10 lb/day; or
- ▶ sensitive receptors would be exposed to a substantial incremental increase in TAC emissions (e.g., stationary- or mobile-source) that result in excess cancer risk greater than 10 in 1 million, or a Hazard Index greater than 1 for noncancer risk, for the maximally exposed individual.

No air district or other regulatory agency in California, including PCAPCD, has identified a significance threshold for GHG emissions generated by a proposed project, or a methodology for analyzing impacts related to GHG emissions or global climate change. By adopting AB 32 and SB 97, however, the State of California has established GHG reduction targets and has determined that GHG emissions as they relate to global climate change are a source of adverse environmental impacts in California that should be addressed under CEQA. Although AB 32 did not amend CEQA, the legislation does include language identifying the various environmental problems in California caused by global warming (Health and Safety Code, Section 38501[a].) SB 97, in contrast, did amend CEQA to require the Governor's Office of Planning and Research to prepare revisions to the State CEQA Guidelines addressing the mitigation of GHGs or their consequences. By only giving certain limited projects protection against CEQA claims based on the alleged failure to properly assess climate change impacts in the environmental documents used to approve them, the legislature allowed that the environmental review for other projects would have to address the issue of global warming when impacts are potentially significant (project or cumulative). The proper context for addressing the issue in an EIR is the discussion of cumulative impacts, because although the emissions of one single project will not cause or alter global climate change, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change.

To meet GHG emissions targets of AB 32, California would need to generate in the future less GHG emissions than current levels. It is recognized, however, that for most projects no simple metric is available to determine whether a single project would substantially increase or decrease overall levels of GHG emissions or conflict with the goals of AB 32.

The text of AB 32 strongly suggests that, when ARB interprets and applies the definition of "greenhouse gas emission source," the regulations promulgated under the legislation will apply primarily, if not exclusively, to stationary sources of GHG emissions (see Section 38505[i] of the Health and Safety Code). Nevertheless, this mandate demonstrates California's commitment to reducing the rate of GHG emissions and the state's associated contribution to climate change, without intent to limit population or economic growth within the state. Thus, to achieve the goals of AB 32, which are tied to GHG emissions rates in specific benchmark years (i.e., 1990), California would have to achieve a lower rate of emissions per unit of population (per person) than it has now. Further, to accommodate future population and economic growth, the state would have to achieve an even lower rate of emissions per unit than was achieved in 1990. (The goal—to achieve 1990 quantities of GHG emissions by 2020—will need to be accomplished with 30 years of population and economic growth beyond 1990 in place.) Thus, future projects that would not encourage reductions in GHG emissions (or continue at "business as usual" emission rates) would conflict with the policy decisions contained in the spirit of AB 32, thus impeding California's ability to comply with the mandate. In addition, if a project would be affected by the reasonably foreseeable effects of climate change, the project should be designed to adapt to altered future conditions.

Although the text of AB 32 focuses on major stationary and area sources of GHG emissions, the primary objective of the legislation is to reduce California's contribution to global warming by reducing California's total annual production of GHG emissions. The impact that GHG emissions have on global climate change does not depend on whether they were generated by stationary, mobile, or area sources, or whether they were generated in one region or another. Thus, consistency with the state's requirements for GHG emissions reductions is the best metric for determining whether the proposed project would contribute to global warming. In the case of the proposed project, if the project does not conform with the state mandate to reduce GHG emissions to 1990 levels by the year 2020 and the associated increase in the amount of mass emissions is considered substantial, then the impact of the project would be cumulatively considerable (significant). Because the nature of global climate change impacts of GHG emissions are cumulative, this impact is discussed in Section 15.5, "Cumulative Impacts," in Chapter 15.0, "Other CEQA-Required Sections," of this EIR.

## IMPACT ANALYSIS

**IMPACT 9-1**      **Air Quality—Short-Term Emission of Criteria Air Pollutants and Precursors during Construction.**  
*Modeled short-term emissions of ozone precursors and fugitive dust from construction of trails and other project facilities would not exceed PCAPCD's significance threshold of 82 lb/day. Thus, emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub> associated with project construction would not violate or contribute substantially to an existing or projected air quality violation, nor would they expose sensitive receptors to substantial concentrations of pollutants.*

**Significance**    *Less than Significant*

**Mitigation Proposed**    *None Warranted*

**Residual Significance**    *Less than Significant*

Construction-related emissions are described as short-term or temporary and have the potential to represent a significant impact with respect to air quality. Project construction activities would result in emissions of criteria air pollutants (PM<sub>10</sub> and PM<sub>2.5</sub>) and ozone precursors (ROG and NO<sub>x</sub>) from site preparation (e.g., excavation, grading, and clearing); exhaust from equipment, material transport vehicles, and worker commute vehicles; vehicle travel on unpaved roads; paving; application of architectural coatings; and other miscellaneous activities.

Emissions of fugitive PM dust (e.g., PM<sub>10</sub> and PM<sub>2.5</sub>) are associated primarily with ground disturbance activities during site preparation, such as grading, and vary as a function of soil silt content, soil moisture, wind speed, acreage of the disturbance area, VMT on- and off-site, and other parameters. Exhaust emissions from diesel equipment and worker commute trips also contribute to short-term increases in total PM emissions, but to a much lesser extent. Emissions of ozone precursors are associated primarily with exhaust emitted by off-road (e.g., gas and diesel) construction equipment. Worker commute trips and other construction-related activities (e.g., application of architectural coatings) also contribute to short-term increases in such emissions.

The proposed project would be constructed in phases over several years as funding allows. Each phase would allow an additional level of public access to the Park. Phase 1 of the construction activities is expected to occur over the next 5 years. Construction of trails and Park facilities within the Spears Ranch portion of the Park, construction of bridge crossings, expansion of the Didion Ranch parking area (including relocating the adjacent helistop), and paving and widening of the access road from Garden Bar Road to the Park would be the largest construction-related sources of emissions during Phase 1. Park facilities would include two permanent restroom facilities, 10 bunkhouses, groundwater wells, fire suppression facilities, equestrian facilities, picnic areas, benches and rest areas, landscaping, and other improvements. Construction of the bunkhouses and restroom facilities would be the largest contributors to air pollutant emissions; minor emissions are expected from other Park improvements. Typical bunkhouse and restroom facilities are around 448 square feet and 400 square feet, respectively, in area. It is likely that trail construction would occur at the same time as the construction of these facilities. The simultaneous occurrence of these activities would represent the worst-case scenario for daily air emissions.

Vegetation along the trail corridor would be cleared by hand before construction, but removal of such vegetation would be minimized to the extent possible. Vegetation removed would be chipped or lopped and scattered near the trails. Topical exposed areas prone to erosion would be stabilized with certified weed free straw in accordance with the Storm Water Pollution Prevention Plan. The trail tread would be excavated using a Sweco trail dozer, a mini excavator, and other machinery capable of conforming to the dimensional requirements of the trails.

Construction of the trail system and the associated recreational facilities is expected to generate a maximum of 400 delivery truck trips.

Emissions of criteria air pollutants and precursors associated with project construction were modeled in accordance with methodologies recommended by PCAPCD. For Phase 1 of construction, truck traffic is expected to be approximately 10–20% of the total number of truck trips (i.e., 40–80 truck trips). However, exact project-specific data for each construction phase (e.g., required types and numbers of construction equipment and maximum daily acreage disturbed) were not available at the time of this analysis. Project-generated emissions were modeled based on general information provided in the project description (see Chapter 3.0 of this EIR) and default URBEMIS settings and parameters attributable to the construction period and site location.

Table 9-3 summarizes the modeled emissions for the construction phases. Construction-related effects on air quality were determined by comparing these modeling results with applicable PCAPCD significance thresholds. Refer to Appendix D of this EIR for detailed modeling input parameters and results.

As shown in Table 9-3, construction-related activities associated with the worst-case day would result in project-generated daily unmitigated emissions of approximately 43 lb/day of ROG, 67 lb/day of NO<sub>x</sub>, and 48 lb/day of PM<sub>10</sub>.

<b>Table 9-3</b> <b>Summary of Modeled Short-Term Daily Emissions of Criteria Air Pollutants and Precursors</b> <b>Associated with Project Construction (Unmitigated)</b>				
Phase	Emissions (lb/day)			
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub> <sup>1</sup>
<b>Trail <sup>2</sup></b>				
Trail Construction	1.89	13.18	43.17	9.49
<b>Facilities Construction <sup>3</sup></b>				
Site Grading	3.35	28.06	2.62	1.55
Building Construction	1.46	10.78	0.69	0.63
Architectural Coating	34.72	0.03	0.00	0.00
<b>Road Improvements</b>				
Paving	5.85	25.77	1.81	1.64
Worst-Case Total Daily Emissions (Unmitigated) <sup>4</sup>	43	67	48	13
PCAPCD Significance Threshold	82	82	82	-
Notes: lb/day = pounds per day; NO <sub>x</sub> = oxides of nitrogen; PCAPCD = Placer County Air Pollution Control District; PM <sub>2.5</sub> = fine particulate matter; PM <sub>10</sub> = respirable particulate matter; ROG = reactive organic gases <sup>1</sup> PCAPCD has not adopted a significance threshold for PM <sub>2.5</sub> ; however, the emissions are included for disclosure purposes. <sup>2</sup> 14 miles of trail would be constructed. Emissions include on-road emissions resulting from truck trips. <sup>3</sup> Facilities construction phases are assumed to occur sequentially with no potential overlap between phases. <sup>4</sup> Worst-case daily emissions were estimated under the premise that trail construction, road improvements, and the facilities construction phase with the highest emissions for each pollutant could occur simultaneously. Note: Total daily emissions rounded to the nearest whole number. All emissions are for 2008. Refer to Appendix D for detailed assumptions and modeling output files. Source: Data modeled by EDAW in 2008				

Based on the modeling conducted, construction-related activities would result in ROG, NO<sub>x</sub>, and PM<sub>10</sub> emissions that would not exceed PCAPCD's significance threshold of 82 lb/day. Thus, project-generated construction-related emissions of criteria air pollutants and precursor emissions would not violate or contribute substantially to an existing or projected air quality violation, and/or expose sensitive receptors to substantial pollutant concentrations. As a result, this impact is considered less than significant.

**IMPACT 9-2**      **Air Quality—Long-Term, Regional Emissions of Criteria Air Pollutants and Ozone Precursors Associated with Project Operation.** *Operational activities associated with the proposed project would not result in emissions of ROG, NO<sub>x</sub>, or PM<sub>10</sub> exceeding PCAPCD's significance threshold of 82 lb/day. Emissions of ROG and NO<sub>x</sub> would also not exceed PCAPCD's cumulative threshold of 10 lb/day. Thus, emissions of criteria air pollutants and precursors associated with project operation would not violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, or conflict with air quality planning effort.*

**Significance**      *Less than Significant*

**Mitigation Proposed**      *None Warranted*

**Residual Significance**      *Less than Significant*

Long-term operation of the proposed project (i.e., use and maintenance of the proposed trails and related recreational facilities) would not result in the use of any new stationary sources of emissions in the project area. Implementation of the proposed project may result in area-source emissions from trail landscape activities and use of heating fuels at the buildings. The trail system and recreational facilities would be designed to be as low maintenance as possible, and in most instances would not require use of mobilized or mechanical equipment. The use of the bunkhouses would be sporadic and would lead to minor emissions.

In addition, the proposed project would result in additional vehicle trips on local roadways because of an increase in visitors to the Park. Regional mobile-source emissions were modeled based on the trip generation data described in Chapter 8.0, "Transportation and Circulation." The project would generate as much as 255 one-way weekday and 460 one-way weekend daily trips during peak periods. Mobile-source emissions were modeled based on weekend trips because that would represent the worst case for daily emissions. Weekday daily emissions would be lower than the emissions caused by weekend traffic. It may be noted that peak usage periods for the Park would tend to coincide with times of higher air quality. Usage tends to drop during times of high heat and poor air quality.

Table 9-4 summarizes the modeled emissions of criteria air pollutants and precursors associated with project operation. Operational air quality impacts were determined by comparing these modeling results with applicable PCAPCD thresholds. Refer to Appendix D of this EIR for detailed modeling input parameters and results.

As shown in Table 9-4, operational activities would result in project-generated daily unmitigated emissions of approximately 4 lb/day of ROG, 7 lb/day of NO<sub>x</sub>, and 6 lb/day of PM<sub>10</sub>.

Based on the modeling conducted, operational activities would not result in project-generated emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub> exceeding PCAPCD's applicable thresholds of 82 lb/day. Emissions of ROG and NO<sub>x</sub> would also not exceed PCAPCD's cumulative significance threshold of 10 lb/day. In addition, PCAPCD relies, to a certain degree, on land use designations contained in general plan documents applicable to its jurisdiction. PCAPCD refers to the contents of approved general plans to forecast, inventory, and allocate regional emissions from land use and development-related sources. These emissions budgets are used in statewide air quality attainment



planning efforts. Because the proposed project would be consistent with the land use designations contained in the General Plan, emissions associated with the proposed land uses would have been accounted for in regional air quality planning efforts.

<b>Table 9-4 Summary of Modeled Long-Term Emissions Associated with Project Operation</b>				
Source	Emissions (lb/day)			
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub> <sup>1</sup>
<b>Completion of Project Construction</b>				
Mobile Source	4.43	7.23	5.93	1.16
Total Unmitigated	4.43	7.23	5.93	1.16
PCAPCD Significance Threshold	82	82	82	–
Notes: lb/day = pounds per day; NO <sub>x</sub> = oxides of nitrogen; PCAPCD = Placer County Air Pollution Control District; PM <sub>2.5</sub> = fine particulate matter; PM <sub>10</sub> = respirable particulate matter; ROG = reactive organic gases <sup>1</sup> PCAPCD has not adopted a significance threshold for PM <sub>2.5</sub> ; however, the emissions are included for disclosure purposes. Refer to Appendix D for detailed assumptions and modeling output files. Source: Data modeled by EDAW in 2008				

In addition, long-term use and maintenance of the proposed trails and associated recreational facilities would not result in the operation of any new stationary sources of air emissions in the project area.

Thus, emissions of criteria air pollutants and precursors associated with project operation would not violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations and/or conflict with air quality planning effort. As a result, this impact would be less than significant.

**IMPACT 9-3**      **Air Quality—Exposure of Sensitive Receptors to Emissions of Toxic Air Contaminants.** *The proposed project would not expose sensitive receptors to substantial emissions of TACs during project construction because construction emissions would be temporary and would rapidly dissipate with distance from the source. However, construction workers and surrounding residents could be exposed to dust from asbestos rock and soils during project construction.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 9-1: Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed*

**Residual Significance**      *Less than Significant*

The potential for exposure of sensitive receptors to emissions of TACs from on-site sources during project construction and exposure to emissions from operational sources are discussed separately below.

### **On-Site Emissions Associated with Project Construction**

Exhaust from off-road, heavy-duty diesel equipment used for site preparation (e.g., excavation, grading, and clearing), as well as paving, application of architectural coatings, and other miscellaneous project construction

activities would result in short-term emissions of diesel PM. Diesel PM was identified as a TAC by ARB in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential noncancer health impacts (ARB 2003). PCAPCD has not adopted a methodology for analyzing such impacts.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC to be compared to applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for such an individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period and duration of activities associated with the proposed project (Salinas, pers. comm., 2004). The use of off-road heavy-duty diesel equipment would be temporary. For this reason, combined with the highly dispersive properties of diesel PM (Zhu et al. 2002) and further reductions in exhaust emissions, emissions of TACs associated with project construction would not expose sensitive receptors to substantial emissions of TACs.

Because the project area is located in an area that is moderately likely to contain naturally occurring asbestos, ground disturbance activities during construction could expose construction workers and surrounding residents to dust from rocks and soil containing naturally occurring asbestos. Some portions of the project area could contain serpentine or ultramafic rock that is common to foothill areas of the county. These types of rock contain thin veins of asbestos that can become airborne when disturbed by grading or mining. Overall, the amount of asbestos is relatively small and typically amounts to less than 1% of the total rock mass. Nevertheless, when material containing naturally occurring asbestos is disturbed, asbestos fibers may be released and become airborne, thereby creating a potential health hazard. Thus, this impact would be potentially significant.

**Emissions from On-Site Stationary, Mobile, and Area Sources during Project Operation**

There are no major existing stationary sources of TACs within 2 miles of the project area. Vehicles on Garden Bar Road, Mears Drive, Mt. Pleasant Road, Mt. Vernon Road, and other roads in the vicinity are sources of diesel PM and other TACs associated with vehicle exhaust. Project implementation would not lead to the operation of any stationary sources of TACs. Mobile sources of TACs include land uses that involve the long-term use of heavy-duty diesel trucks. Implementation of the proposed project would not lead to the development of any facilities that would require the long-term use of heavy-duty diesel trucks (e.g., loading docks).

The project would have a potentially significant health hazard related to asbestos fibers. Implementation of Mitigation Measure 9-1 would reduce this impact to a less-than-significant level.

IMPACT 9-4	<b>Air Quality—Long-Term (Local) Mobile-Source Emissions of Carbon Monoxide during Project Operation.</b> <i>Long-term operational (local) mobile-source emissions of CO would not violate or contribute substantially to a violation of the CAAQS or NAAQS, nor would they expose sensitive receptors to substantial pollutant concentrations.</i>
Significance	<i>Less than Significant</i>
Mitigation Proposed	<i>None Warranted</i>
Residual Significance	<i>Less than Significant</i>

CO concentration is a direct function of motor vehicle activity (e.g., idling time and traffic flow conditions), particularly during peak commute hours, and of meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses such as residential areas, schools, and hospitals. As a result, PCAPCD recommends analysis of CO emissions at a local rather than a regional level.

An appropriate qualitative screening procedure is provided in the procedures and guidelines contained in *Transportation Project-Level Carbon Monoxide Protocol*, published by the University of California, Davis, Institute of Transportation Studies, to determine whether a project poses the potential for a CO hotspot (UCD ITS 1997). A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. According to the protocol, projects may worsen air quality if they would do any of the following:

- ▶ increase the percentage of vehicles in cold-start modes by 2% or more,
- ▶ significantly increase traffic volumes (by 5% or more) over existing volumes, or
- ▶ worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at level of service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project to operate at LOS E or F.

The project's traffic analysis (see Chapter 8.0, "Transportation and Circulation") indicates that all signalized intersections that were analyzed would operate at LOS E or LOS F under cumulative conditions without and with the project. Thus, long-term, local mobile-source emissions of CO associated with project operation would not violate or substantially contribute to a violation of the CAAQS or NAAQS, nor would they expose sensitive receptors to substantial pollutant concentrations. As a result, this impact is considered less than significant.

As noted previously, the project area is located in an area that is moderately likely to contain naturally occurring asbestos. Unlike during short-term construction activities, long-term operation of the project would not result in ground disturbance and associated potential for this material to become airborne. Thus, assuming average conditions, exposure of operational users of the proposed project to naturally occurring asbestos fibers would be minimal, and would not be expected to result in a health hazard. This impact would be less than significant.

<b>IMPACT</b> 9-5	<b>Air Quality—Exposure of Sensitive Receptors to Odors.</b> <i>Construction of the proposed trails and recreational facilities would result in diesel exhaust emissions from on-site construction equipment. However, these emissions would be intermittent and would dissipate rapidly with an increase in distance from the source. The proposed project would not be a major source of odors.</i>
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<b>Significance</b>	<i>Less than Significant</i>
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<b>Mitigation Proposed</b>	<i>None Warranted</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptor. Although offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

The proposed project would result in diesel exhaust emissions from on-site construction equipment during project construction. Such emissions would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance.

In addition, the proposed project would not include the long-term operation of any new sources of odor; therefore, the project would not create objectionable odors affecting a substantial number of people. This impact would be less than significant.

## **9.4 MITIGATION MEASURES**

**Mitigation Measure 9-1: Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed.**

*Mitigation Measure 9-1 applies to Impact 9-3.*

Prior to the start of construction activities, the County shall test the on-site soils for the presence of asbestos. If asbestos is not present in on-site soils, no further measured would be required. If asbestos is determined to be present on-site, the County shall prepare and implement an asbestos dust control plan as described below.

The project shall comply with PCAPCD Rule 228 for fugitive dust control. In addition, the County shall prepare an asbestos dust control plan for approval by PCAPCD as required in Section 93105 of the California Health and Safety Code, "Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations." The asbestos dust control plan shall specify measures, such as periodic watering to reduce airborne dust and ceasing construction during high winds to ensure that no visible dust crosses the property line. The County shall submit the plan to the County Planning Department for review and PCAPCD for review and approval before construction of the first project phase. Approval of the plan must be received from PCAPCD before any asbestos-containing rock (serpentine) can be disturbed. Upon approval of the asbestos dust control plan by PCAPCD, the County shall ensure that construction contractors implement the terms of the plan throughout the construction period.

Implementation of Mitigation Measure 9-1 would reduce the potentially significant impact related to asbestos exposure to a less-than-significant level.

## 10.0 NOISE

This chapter includes a description of ambient-noise conditions, a summary of applicable regulations related to noise and vibration, and an analysis of potential noise impacts of the proposed project. Mitigation measures are recommended as necessary to reduce significant noise impacts.

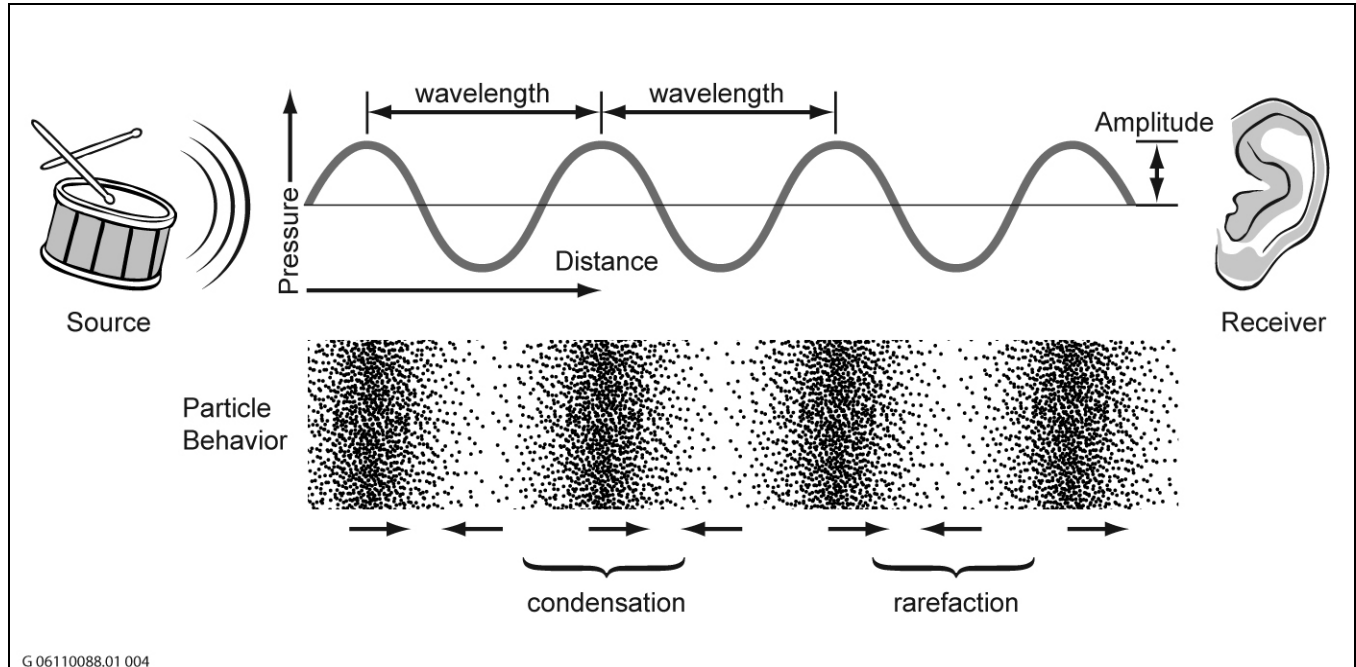
### 10.1 ENVIRONMENTAL SETTING

#### 10.1.1 SOUND FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave by a disturbance or vibration that causes pressure variation in air that the human ear can detect.

##### Sound Properties

A sound wave is introduced into a medium (air) by a vibrating object. The vibrating object (e.g., vocal cords, the string of a guitar or the diaphragm of a radio speaker) is the source of the disturbance that moves through the medium (Exhibit 10-1). Regardless of the type of source creating the sound wave, the particles of the medium through which the sound moves are vibrating in a back-and-forth motion at a given rate (frequency). The frequency of a wave refers to how often the particles vibrate when a wave passes through the medium. The frequency of a wave is measured as the number of complete back-and-forth vibrations of a particle per unit of time. One complete back-and-forth vibration is called a cycle. If a particle of air undergoes 1,000 cycles in 2 seconds, then the frequency of the wave would be 500 cycles per second. The common unit used for frequency is in cycles per second, called Hertz (Hz).



Source: Data provided by EDAW in 2007

##### Sound Wave Properties

##### Exhibit 10-1

Each particle vibrates as a result of the motion of its nearest neighbor. For example, the first particle of the medium begins vibrating at 500 Hz and sets the second particle of the medium into motion at the same frequency (500 Hz). The second particle begins vibrating at 500 Hz and thus sets the third particle into motion at 500 Hz. The process continues throughout the medium; hence each particle vibrates at the same frequency, which is the frequency of the original source. Subsequently, a guitar string vibrating at 500 Hz will set the air particles in the room vibrating at the same frequency (500 Hz), which carries a sound signal to the ear of a listener that is detected as a 500-Hz sound wave.

The back-and-forth vibration motion of the particles of the medium would not be the only observable phenomenon occurring at a given frequency. Because a sound wave is a pressure wave, a detector could be used to detect oscillations in pressure from high to low and back to high pressure. As the compression (high-pressure) and rarefaction (low-pressure) disturbances move through the medium, they would reach the detector at a given frequency. For example, a compression would reach the detector 500 times per second if the frequency of the wave were 500 Hz. Similarly, a rarefaction would reach the detector 500 times per second if the frequency of the wave were 500 Hz. Thus, the frequency of a sound wave refers not only to the number of back-and-forth vibrations of the particles per unit of time, but also to the number of compression or rarefaction disturbances that pass a given point per unit of time. A detector could be used to detect the frequency of these pressure oscillations over a given period of time. The period of the sound wave can be found by measuring the time between successive high-pressure points (corresponding to the compressions) or the time between successive low-pressure points (corresponding to the rarefactions). The frequency is simply the reciprocal of the period; thus an inverse relationship exists so that as frequency increases, the period decreases, and vice versa.

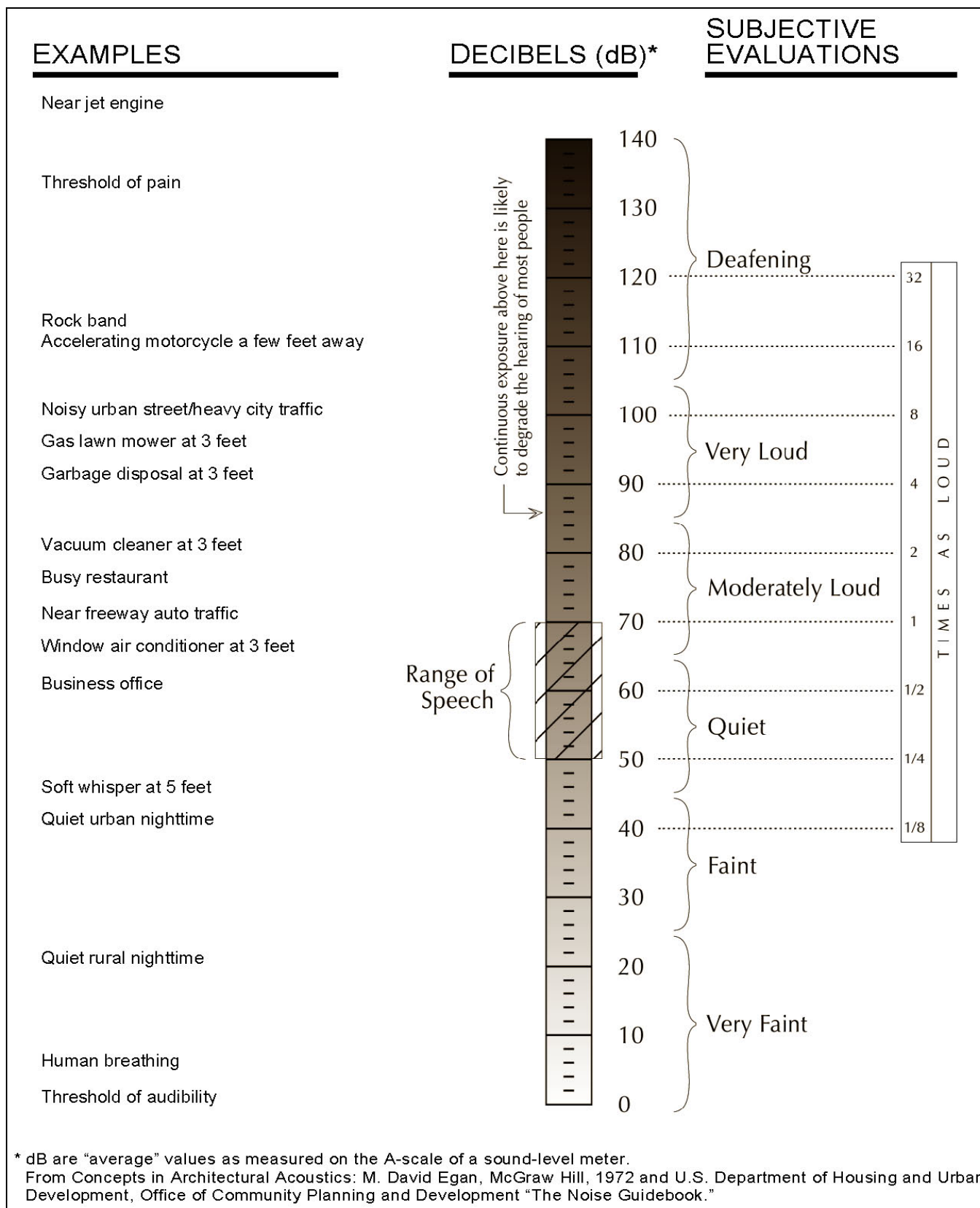
A wave is a phenomenon that transports energy along a medium. The amount of energy carried by a wave is related to the amplitude (loudness) of the wave. A high-energy wave is characterized by large amplitude; a low-energy wave is characterized by small amplitude. The amplitude of a wave refers to the maximum amount of displacement of a particle from its rest position. The energy transported by a wave is directly proportional to the square of the amplitude of the wave. This means that a doubling of the amplitude of a wave indicates a quadrupling of the energy transported by the wave.

## **Sound and the Human Ear**

Because of the ability of the human ear to detect a wide range of sound-pressure fluctuations, sound-pressure levels are expressed in logarithmic units called decibels (dB) to avoid a very large and awkward range in numbers. The sound-pressure level in decibels is calculated by taking the log of the ratio between the actual sound pressure and the reference sound pressure and then multiplying by 20. The reference sound pressure is considered the absolute hearing threshold (Caltrans 1998). Use of this logarithmic scale reveals that the total sound from two individual 65-dB sources is 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB).

Because the human ear is not equally sensitive to all audible frequencies, a frequency-dependent rating scale was devised to relate noise to human sensitivity. An A-weighted dB (dBA) scale performs this compensation by discriminating against frequencies that are more sensitive to humans. The basis for compensation is the faintest sound audible to the average ear at the frequency of maximum sensitivity. This dBA scale has been chosen by most authorities for regulating environmental noise. Exhibit 10-2 presents typical indoor and outdoor noise levels.

With respect to how humans perceive and react to changes in noise levels, a 1-dBA increase is imperceptible, a 3-dBA increase is barely perceptible, a 6-dBA increase is clearly noticeable, and a 10-dBA increase is subjectively perceived as approximately twice as loud (Egan 1988), as presented in Table 10-1. Table 10-1 was developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broadband noise and to changes in levels of a given noise source. It is probably most applicable to noise levels in the range of 50–70 dBA because this is the usual range of voice and interior noise levels. For these reasons, a noise level increase of 3 dBA or more is typically considered a substantial degradation of the existing noise environment.



Source: Data compiled by EDAW in 2007

## Typical Noise Levels

## Exhibit 10-2

<b>Table 10-1</b> <b>Subjective Reaction to Changes in Noise Levels of Similar Sources</b>		
Change in Level (dBA)	Subjective Reaction	Factor Change in Acoustical Energy
1	Imperceptible (Except for Tones)	1.3
3	Just Barely Perceptible	2.0
6	Clearly Noticeable	4.0
10	About Twice (or Half) as Loud	10.0
Note: dBA = A-weighted decibels Source: Egan 1988		

## Sound Propagation and Attenuation

As sound (noise) propagates from the source to the receptor, the attenuation, or manner of noise reduction in relation to distance, depends on surface characteristics, atmospheric conditions, and the presence of physical barriers. The inverse-square law describes the attenuation caused by the pattern in which sound travels from the source to receptor. Sound travels uniformly outward from a point source in a spherical pattern with an attenuation rate of 6 dBA per doubling of distance (dBA/DD). However, from a line source (e.g., a road), sound travels uniformly outward in a cylindrical pattern with an attenuation rate of 3 dBA/DD. The surface characteristics between the source and the receptor may result in additional sound absorption and/or reflection. Soft surfaces such as dirt cover or vegetation can provide an additional 1.5 dBA/DD. Hard surfaces such as parking lots, water, and other roadway surfaces would provide additional attenuation. Atmospheric conditions such as wind speed, temperature, and humidity also affect noise attenuation. Furthermore, the presence of a barrier between the source and the receptor may also attenuate noise levels. The actual amount of attenuation depends on the size of the barrier and the frequency of the noise. A noise barrier may consist of any natural or human-made feature such as a hill, grove of trees, building, wall, or berm (Caltrans 1998).

All buildings provide some exterior-to-interior noise reduction. A building constructed with a wood frame and a stucco or wood sheathing exterior typically provides a minimum exterior-to-interior noise reduction of 25 dBA with its windows closed; by contrast, a building constructed of a steel or concrete frame, a curtain wall or masonry exterior wall, and fixed plate-glass windows one-quarter inch thick typically provides an exterior-to-interior noise reduction of 30–40 dBA with its windows closed (Paul S. Veneklasen & Associates 1973, cited in Caltrans 2002).

## Noise Descriptors

The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and amplitudinal fluctuation of the noise. The noise descriptors most often used when dealing with traffic, community, and environmental noise are defined below (Caltrans 1998, Lipscomb and Taylor 1978):

- ▶ *L<sub>max</sub> (maximum noise level)*: The maximum instantaneous noise level during a specific period of time. The *L<sub>max</sub>* may also be referred to as the “peak (noise) level.”
- ▶ *L<sub>min</sub> (minimum noise level)*: The minimum instantaneous noise level during a specific period of time.
- ▶ *L<sub>X</sub> (statistical descriptor)*: The noise level exceeded X% of a specific period of time.
- ▶ *L<sub>eq</sub> (equivalent noise level)*: The energy mean (average) noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value is calculated, which is then converted back to dBA to determine the *L<sub>eq</sub>*.



In noise environments determined by major noise events, such as aircraft overflights, the  $L_{eq}$  value is heavily influenced by the magnitude and number of single events that produce the high noise levels.

- ▶  *$L_{dn}$  (day-night noise level)*: The 24-hour  $L_{eq}$  with a 10-dBA “penalty” for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m. In other words, 10 dBA is “added” to noise events that occur in the nighttime hours, and this generates a higher reported noise level when determining compliance with noise standards. The  $L_{dn}$  attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.
- ▶ *CNEL (community noise equivalent level)*: A noise level similar to the  $L_{dn}$  described above, but with an additional 5-dBA “penalty” added to noise events that occur during the noise-sensitive hours between 7 p.m. and 10 p.m., which are typically reserved for relaxation, conversation, reading, and television. If the same 24-hour noise data are used, the reported CNEL is typically approximately 0.5 dBA higher than the  $L_{dn}$ .
- ▶ *SENL (single-event [impulsive] noise level)*: A receiver’s cumulative noise exposure level from a single impulsive noise event, which is an acoustical event of short duration that involves a change in sound pressure above some reference value. SENLs typically represent the noise events used to calculate the  $L_{eq}$ ,  $L_{dn}$ , and CNEL.

Community noise is commonly described in terms of the ambient noise level, the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average (equivalent) sound level,  $L_{eq}$ , which corresponds to a steady-state sound level that contains the same total energy as a time-varying signal over a given time period (usually 1 hour). The  $L_{eq}$  is the foundation of the composite noise descriptors such as  $L_{dn}$  and CNEL, as defined above, and shows a positive correlation with community response to noise.

## Negative Effects of Noise on Humans

Negative effects of noise exposure include physical damage to the human auditory system, interference, and disease. Physical damage to the auditory system can lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over an extended period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a brief period. Both gradual and traumatic hearing loss may result in permanent hearing damage. In addition, noise may interfere with or interrupt sleep, relaxation, recreation, and communication. Although most interference may be classified as annoying, the inability to hear a warning signal is considered dangerous. Noise may also contribute to diseases associated with stress, such as hypertension, anxiety, and heart disease. The degree to which noise contributes to such diseases depends on the frequency, bandwidth, noise level, and duration of exposure (Caltrans 1998).

## Vibration

Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structureborne noise. Both natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment) can result in groundborne vibration. Some vibration sources, such as factory machinery, are continuous; others, such as explosions, are transient. As is the case with airborne sound, groundborne vibration may be described by amplitude and frequency.

Vibration amplitude is typically expressed in peak particle velocity (PPV) or root mean square (RMS), as in RMS vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is the metric often used to describe blasting vibration and other vibration sources that result in structural stresses in buildings (FTA 2006, Caltrans 2002).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a period of 1 second. As with airborne sound, the RMS velocity is often expressed in decibel notation as velocity decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2006). This velocity decibel scale is based on a reference value of 1 microinch per second ( $\mu\text{in/sec}$ ).

The background vibration-velocity level typical of residential areas is approximately 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2006).

Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration is rarely perceptible. The range of human perception of vibration is from approximately 50 VdB, the typical background vibration-velocity level, to 100 VdB, the general threshold where minor damage can occur in fragile buildings. Construction activities can generate groundborne vibrations, which can pose a risk to nearby structures. Constant or transient vibration can weaken structures, crack facades, and disturb occupants (FTA 2006).

Construction-generated vibration can be transient, random, or continuous. Transient construction vibration is generated by blasting, impact pile driving, and wrecking balls. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment. Continuous vibration results from vibratory pile drivers, large pumps, horizontal directional drilling, and compressors. Table 10-2 summarizes the general human response to different levels of groundborne vibration.

Table 10-2 Human Response to Different Levels of Groundborne Vibration	
Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there is an infrequent number of events per day.
Note: VdB = velocity decibels referenced to 1 $\mu\text{in/sec}$ and based on the root mean square vibration velocity. Source: FTA 2006	

10.1.2 EXISTING NOISE ENVIRONMENT

EXISTING SENSITIVE LAND USES

Land uses that are sensitive to noise and vibration are those uses where exposure would result in adverse effects (i.e., annoyance and/or structural damage) and uses where quiet is an essential element of their intended purpose. Residences are of primary concern because of the potential for increased, prolonged exposure of individuals to both interior and exterior noise or vibration. Other noise-sensitive land uses are hospitals, convalescent facilities, hotels, churches, libraries, and other uses where low interior noise levels are essential.

Noise-sensitive land uses located near the project area are 12 rural homes to the south, off Miller Lane and Godley Road. The closest of these residences is approximately 800 feet from the southern boundary of the Park. The next

closest residential area is located along Garden Bar Road approximately 1,600 feet northwest of the Park's west boundary.

## EXISTING NOISE SOURCES

The project area is located in an unincorporated area of Placer County. It was used for cattle grazing in the recent past, and portions of the property continue to be used for this purpose. Adjacent land uses include rural residential home sites and agricultural activities, mostly cattle grazing and raising other livestock and recreational uses on the Didion Ranch portion of the Park. The local noise environment is rural. Agricultural activities, birds, aircraft flyovers, plants rustling, and minor vehicle traffic are the audible noise sources. Natural sounds from meteorological effects (e.g., wind rustling plants, running water) and wildlife are the predominant ambient noise source.

## EXISTING-NOISE SURVEY

To quantify the existing noise environment in the project vicinity, three short-term noise measurements were collected on Thursday, June 21, 2007, using a Larson-Davis Model 824 sound meter. The sound meter was calibrated immediately before each measurement, and measurements were conducted in accordance with the acoustical standards of the American National Standards Institute. As presented in Table 10-3, noise levels in the project vicinity range from 35.2 dBA  $L_{eq}$  to 42.1 dBA  $L_{eq}$ , with  $L_{max}$  ranges from 47.7 dBA to 61.4 dBA (readings at the high end of the range were generated by aircraft flyovers). Noise sources noted during the measurements included buzzing insects, singing birds, and wind. Noise associated with agricultural uses—tractors, yelling voices, cows, and horses—was also reflected in the measurements. Exhibit 10-3 shows the measurement locations.

<b>Table 10-3</b> <b>Existing Ambient Noise Levels</b>					
Measurement Number <sup>1</sup>	Location	Monitoring Period	Sound Level (dBA) <sup>2</sup>		
			$L_{eq}$ <sup>3</sup>	$L_{min}$ <sup>4</sup>	$L_{max}$ <sup>5</sup>
1	Northeast corner	11:00–11:15 a.m.	39.5	31.5	53.4
2	Southern border	10:00–10:15 a.m.	42.1	26.4	61.4
3	Northwest corner	8:40–9:05 a.m.	35.2	28.6	47.7

<sup>1</sup> Measurement locations are shown in Exhibit 10-3.

<sup>2</sup> dBA (A-weighted decibels): The weighted sound level measurement scale specifically adjusted to human hearing.

<sup>3</sup>  $L_{eq}$  (equivalent noise level): The energy mean (average) noise level.

<sup>4</sup>  $L_{min}$  (minimum noise level): The minimum instantaneous noise level during a specific period of time.

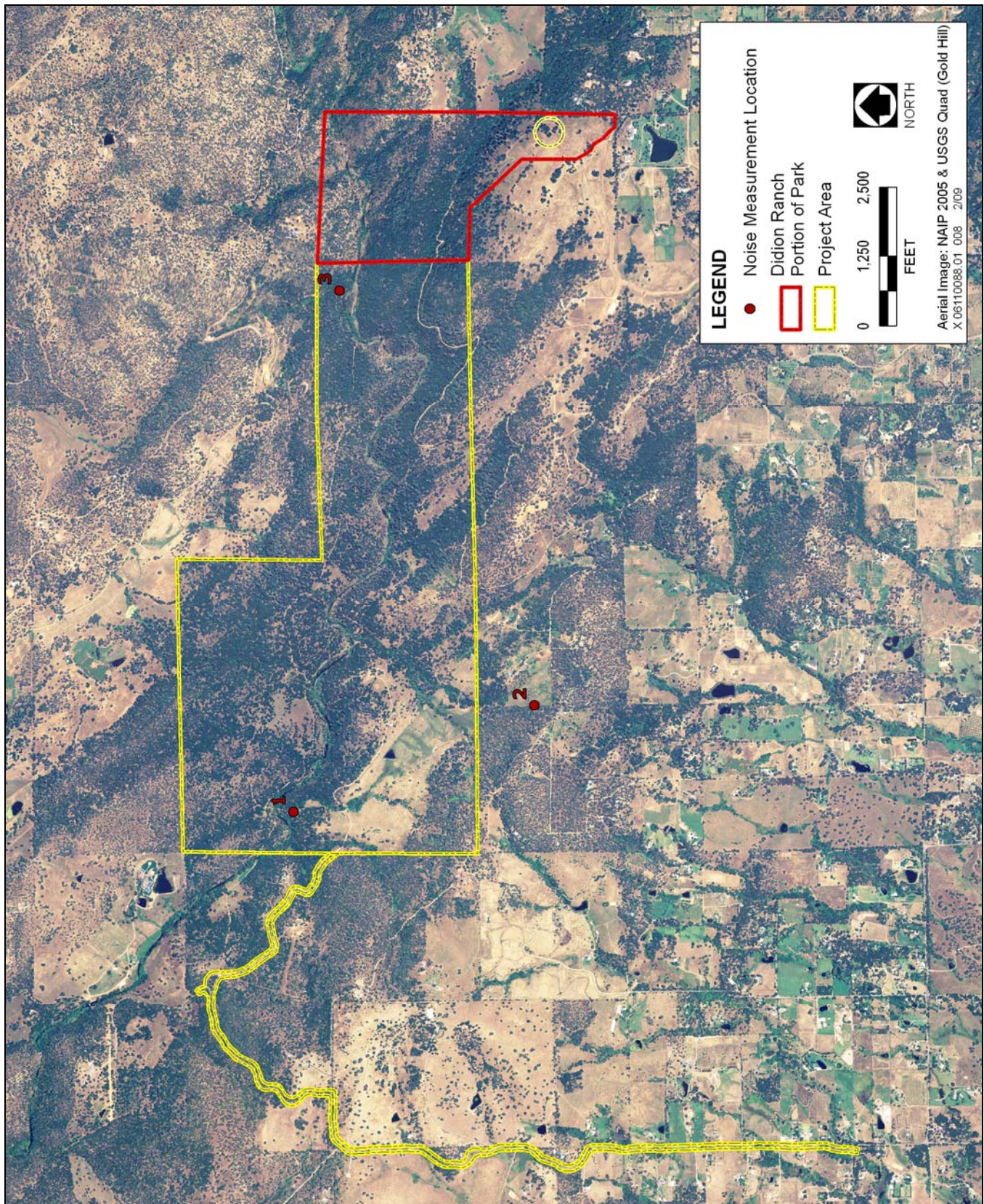
<sup>5</sup>  $L_{max}$  (maximum noise level): The maximum instantaneous noise level during a specific period of time.

Source: Measurements collected by EDAW on Thursday, June 21, 2007

## EXISTING TRAFFIC NOISE LEVELS

Existing traffic noise levels were estimated using the Federal Highway Administration's (FHWA's) traffic noise prediction model (FHWA-RD-77-108) and traffic data obtained from the traffic analysis prepared for this project (Chapter 8.0, "Transportation and Circulation"). Table 10-4 presents the predicted CNEL noise levels at 50 feet from the centerline of the near travel lane and distances from roadway centerline to the 55-, 60-, 65-, and 70-dBA CNEL contours for existing average daily traffic (ADT) volumes. Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths. Actual noise levels vary from day to day, depending on local traffic volumes, shielding from existing structures, variations in attenuation rates attributable to changes in surface parameters, and meteorological conditions.





Source: Data compiled by EDAW in 2007

Ambient Noise Measurement Locations

Exhibit 10-3



Table 10-4 Summary of Modeled Existing Vehicular Traffic Noise Levels					
Roadway Segment and Location	Distance (feet) from Roadway Centerline to CNEL				CNEL (dBA) 50 Feet from Centerline of Near Travel Lane
	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL	
Weekday					
Garden Bar Road, north of Mt. Pleasant Road	2	4	8	17	47.9
Garden Bar Road, south of Mt. Pleasant Road	5	10	23	49	54.8
Mt. Pleasant Road, west of Garden Bar Road	4	8	18	39	53.4
Mt. Pleasant Road, east of Garden Bar Road	7	15	33	70	57.2
Mears Drive, north of Mt. Vernon Road	2	4	9	20	49.1
Weekend					
Garden Bar Road, north of Mt. Pleasant Road	2	3	7	16	47.5
Garden Bar Road, south of Mt. Pleasant Road	4	9	20	42	53.9
Mt. Pleasant Road, west of Garden Bar Road	3	7	16	34	52.6
Mt. Pleasant Road, east of Garden Bar Road	6	13	28	60	56.2
Mears Drive, north of Mt. Vernon Road	2	4	8	18	48.3
Notes: CNEL = community noise equivalent level; dBA = A-weighted decibels. Calculated noise levels do not consider any shielding or reflection of noise by existing structures, vegetation, or terrain features; or noise contribution from other sources. See modeling results in Appendix E for further detail. Source: Modeling performed by EDAW in 2007					

## 10.2 REGULATORY SETTING

### 10.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulations, or laws related to noise are applicable to the proposed project. However, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses to address the human response to groundborne vibration (FTA 2006):

- ▶ 65 VdB (referenced to 1  $\mu$ m/sec and based on the RMS velocity amplitude) for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, laboratory facilities);
- ▶ 80 VdB for residential uses and buildings where people normally sleep; and
- ▶ 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices).

Standards have also been established to address the potential for groundborne vibration to cause structural damage to buildings. These standards were developed by the Committee of Hearing, Bio Acoustics, and Bio Mechanics at the request of the U.S. Environmental Protection Agency (EPA) (FTA 2006). For fragile structures, the committee recommends a maximum limit of 0.25 in/sec PPV (FTA 2006).

## 10.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

The *State of California General Plan Guidelines*, published by the Governor's Office of Planning and Research (2003), provides guidance for the acceptability of projects within specific CNEL/L<sub>dn</sub> contours. Table 10-5 presents acceptable and unacceptable community-noise-exposure limits for various land-use categories. Generally, residential uses are considered to be acceptable in areas where exterior noise levels do not exceed 60 dBA CNEL/L<sub>dn</sub>. Residential uses are normally unacceptable in areas exceeding 70 dBA CNEL/L<sub>dn</sub> and conditionally acceptable within 55–70 dBA CNEL/L<sub>dn</sub>. Schools are normally acceptable in areas up to 70 dBA CNEL/L<sub>dn</sub> and normally unacceptable in areas exceeding 70 dBA CNEL/L<sub>dn</sub>. Recreation uses are normally acceptable in areas up to 75 dBA CNEL/L<sub>dn</sub>. The guidelines also present adjustment factors that may be used to arrive at noise-acceptability standards that reflect the noise-control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise issues.

<b>Table 10-5</b> <b>State Noise Compatibility Guidelines, by Land Use Category</b>				
Land Use Category	Community Noise Exposure (CNEL/L <sub>dn</sub> , dBA)			
	Normally Acceptable <sup>1</sup>	Conditionally Acceptable <sup>2</sup>	Normally Unacceptable <sup>3</sup>	Clearly Unacceptable <sup>4</sup>
Residential—Low-Density Single-Family, Duplex, Mobile Home	<60	55–70	70–75	75+
Residential—Multiple-Family	<65	60–70	70–75	75+
Transient Lodging, Motel, Hotel	<65	60–70	70–80	80+
School, Library, Church, Hospital, Nursing Home	<70	60–70	70–80	80+
Auditorium, Concert Hall, Amphitheater		<70	65+	
Sports Arenas, Outdoor Spectator Sports		<75	70+	
Playground, Neighborhood Park	<70		67.5–75	72.5+
Golf Courses, Stable, Water Recreation, Cemetery	<75		70–80	80+
Office Building, Business Commercial and Professional	<70	67.5–77.5	75+	
Industrial, Manufacturing, Utilities, Agriculture	<75	70–80	75+	
<b>Notes:</b> CNEL = community noise equivalent level; dBA = A-weighted decibels; L <sub>dn</sub> = day-night noise level (the 24-hour energy mean [average] noise level with a 10-dBA "penalty" for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m.) <sup>1</sup> Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. <sup>2</sup> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. <sup>3</sup> New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded. <sup>4</sup> New construction or development should generally not be undertaken. Source: Governor's Office of Planning and Research 2003				

With respect to vibration, the California Department of Transportation (Caltrans) recommends a more conservative threshold of 0.2 in/sec PPV for normal residential buildings and 0.08 in/sec PPV for old or historically significant structures (Caltrans 2002) to protect fragile, historic, and residential structures. These standards are more stringent than the federal guidance established by the Committee of Hearing, Bio Acoustics, and Bio Mechanics, presented above.

## 10.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

### PLACER COUNTY GENERAL PLAN

The following are the relevant policies identified by the *Placer County General Plan* (Placer County 1994) for noise.

- ▶ **Policy 9.A.2.** The County shall require that noise created by new nontransportation noise sources be mitigated so as not to exceed the noise level standards of Table 9-1 [Table 10-6 in this document] as measured immediately within the property line of lands designated for noise-sensitive uses.
- ▶ **Policy 9.A.9.** Noise created by new transportation noise sources, including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 9-3 [Table 10-7 in this document] at outdoor activity areas or interior spaces of existing noise-sensitive land uses.
- ▶ **Policy 9.A.12.** Where noise mitigation measures are required to achieve the standards of Tables 9-1 and 9-3 [Tables 10-6 and 10-7 of this document, respectively], the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

<b>Table 10-6</b> <b>Allowable L<sub>dn</sub> Noise Levels Within Specified Zone Districts<sup>1</sup></b> <b>Applicable to New Projects Affected by or Including Nontransportation Noise Sources</b>		
Zone District of Receptor	CNEL/L <sub>dn</sub> (dBA) at Property Line of Receiving Use	Interior Spaces (dBA) <sup>2</sup>
Residential Adjacent to Industrial <sup>3</sup>	60	45
Other Residential <sup>4</sup>	50	45
Office/Professional	70	45
Transient Lodging	65	45
Neighborhood Commercial	70	45
General Commercial	70	45
Heavy Commercial	75	45
Limited Industrial	75	45
Highway Service	75	45
Shopping Center	70	45
Industrial	—	45
Industrial Park	75	45
Industrial Reserve	—	—
Airport	—	45
Unclassified	—	—
Farm	— <sup>6</sup>	—
Agriculture Exclusive	— <sup>6</sup>	—
Forestry	—	—
Timberland Preserve	—	—
Recreation & Forestry	70	—
Open Space	—	—
Mineral Reserve	—	—

**Table 10-6**  
**Allowable L<sub>dn</sub> Noise Levels Within Specified Zone Districts<sup>1</sup>**  
**Applicable to New Projects Affected by or Including Nontransportation Noise Sources**

**Notes:**

CNEL = community noise equivalent level; dBA = A-weighted decibels; L<sub>dn</sub> = day-night noise level (the 24-hour energy mean [average] noise level with a 10-dBA "penalty" for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m.)

- Except where noted otherwise, noise exposures will be those that occur at the property line of the receiving use.
- Where existing transportation noise levels exceed the standards of this table, the allowable CNEL/L<sub>dn</sub> shall be raised to the same level as that of the ambient level.
- If the noise source generated by, or affecting, the uses shown above consists primarily of speech or music, or if the noise source is impulsive in nature, the noise standards shown above shall be decreased by 5 dB.
- Where a use permit has established noise level standards for an existing use, those standards shall supersede the levels specified in Table 10-6 and Table 10-7. Similarly, where an existing use which is not subject to a use permit causes noise in excess of the allowable levels in Tables 10-6 and 10-7, said excess noise shall be considered the allowable level. If a new development is proposed that will be affected by noise from such an existing use, it will ordinarily be assumed that the noise levels already existing or those levels allowed by the existing use permit, whichever are greater, are those levels actually produced by the existing use.
- Existing industry located in industrial zones will be given the benefit of the doubt in being allowed to emit increased noise consistent with the state of the art<sup>5</sup> at the time of expansion. In no case will expansion of an existing industrial operation be cause to decrease allowable noise emission limits. Increased emissions above those normally allowable should be limited to a one-time 5 dB increase at the discretion of the decision-making body.
- The noise level standards applicable to land uses containing incidental residential uses, such as caretaker dwellings at industrial facilities and homes on agriculturally zoned land, shall be the standards applicable to the zone district, not those applicable to residential uses.
- Where no noise level standards have been provided for a specific zone district, it is assumed that the interior and/or exterior spaces of these uses are effectively insensitive to noise.

<sup>1</sup> Overriding policy on interpretation of allowable noise levels: Industrial-zoned properties are confined to unique areas of the county, and are irreplaceable. Industries that provide primary wage-earner jobs in the county, if forced to relocate, will likely be forced to leave the county. For this reason, industries operating upon industrial zoned properties must be afforded reasonable opportunity to exercise the rights/privileges conferred upon them by their zoning. Whenever the allowable noise levels herein fall subject to interpretation relative to industrial activities, the benefit of the doubt shall be afforded to the industrial use. Where an industrial use is subject to infrequent and unplanned upset or breakdown of operations resulting in increased noise emissions, where such upsets and breakdowns are reasonable considering the type of industry, and where the industrial use exercises due diligence in preventing as well as correcting such upsets and breakdowns, noise generated during such upsets and breakdowns shall not be included in calculations to determine conformance with allowable noise levels.

<sup>2</sup> Interior spaces are defined as any locations where some degree of noise sensitivity exists. Examples include all habitable rooms of residences, and areas where communication and speech intelligibility are essential, such as classrooms and offices.

<sup>3</sup> Noise from industrial operations may be difficult to mitigate in a cost-effective manner. In recognition of this fact, the exterior noise standards for residential zone districts immediately adjacent to industrial, limited industrial, industrial park, and industrial reserve zone districts have been increased by 10 dB as compared to residential districts adjacent to other land uses. For purposes of the Noise Element, residential zone districts are defined to include the following zoning classifications: AR, R-1, R-2, R-3, FR, RP, TR-1, TR-2, TR-3, and TR-4.

<sup>4</sup> Where a residential zone district is located within an -SP combining district, the exterior noise level standards are applied at the outer boundary of the -SP district. If an existing industrial operation within an -SP district is expanded or modified, the noise level standards at the outer boundary of the -SP district may be increased as described above in these standards. Where a new residential use is proposed in an -SP zone, an administrative review permit is required, which may require mitigation measures at the residence for noise levels existing and/or allowed by use permit as described under "Notes," above, in these standards.

<sup>5</sup> State of the art should include the use of modern equipment with lower noise emissions, site design, and plant orientation to mitigate off-site noise impacts, and similar methodology.

<sup>6</sup> Normally, agricultural uses are noise insensitive and will be treated in this way. However, conflicts with agricultural noise emissions can occur where single-family residences exist within agricultural zone districts. Therefore, where effects of agricultural noise on residences located in these agricultural zones are a concern, a CNEL/L<sub>dn</sub> of 70 dBA will be considered acceptable outdoor exposure at a residence.

Source: Placer County 1994



<b>Table 10-7</b> <b>Maximum Allowable Noise Exposure for Transportation Noise Sources</b>			
Land Use	Outdoor Activity Areas <sup>1</sup>	Interior Spaces (dBA)	
	CNEL/L <sub>dn</sub> (dBA)	CNEL/L <sub>dn</sub>	L <sub>eq</sub> <sup>2</sup>
Residential	60 <sup>3</sup>	45	—
Transient Lodging	60 <sup>3</sup>	45	—
Hospitals, Nursing Homes	60 <sup>3</sup>	45	—
Theaters, Auditoriums, Music Halls	—	—	35
Churches, Meeting Halls	60 <sup>3</sup>	—	40
Office Buildings	—	—	45
Schools, Libraries, Museums	—	—	45
Playgrounds, Neighborhood Parks	70	—	—
Notes: CNEL = community noise equivalent level; dBA = A-weighted decibels; L <sub>dn</sub> = day-night noise level (the L <sub>eq</sub> with a 10-dBA “penalty” for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m.); L <sub>eq</sub> = equivalent noise level (the 24-hour energy mean [average] noise level) <sup>1</sup> Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. <sup>2</sup> As determined for a typical worst-case hour during periods of use. <sup>3</sup> Where it is not possible to reduce noise in outdoor activity areas to 60 dB CNEL/L <sub>dn</sub> or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB CNEL/L <sub>dn</sub> may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table. Source: Placer County 1994			

## Construction Noise

The Placer County Planning Commission passed the following resolution (Minute Order 90-08) regarding construction noise associated with land development projects, and the conditions of this resolution shall be applied to address construction noise impacts:

The Planning Commission and Zoning Administrator are hereby directed to consider placement of the following conditions on an individual project basis to control construction noise in areas where existing residences may be adversely impacted.

1. All construction vehicles or equipment, fixed or mobile, operated in close proximity of a residential dwelling shall be equipped with properly operating and maintained mufflers; and/or
2. Stockpiling and/or vehicle staging areas shall be identified by the applicant on the improvement plans and shall be located as far as is practical from existing dwellings in the area; and/or
3. Construction noise emanating from any commercial or residential construction activities for which a building permit is required shall be prohibited on Sundays or federal holidays, and shall only occur:
  - a. Monday through Friday, 6:00 a.m. to 8:00 p.m.; and
  - b. Saturdays, 8:00 a.m. to 8:00 p.m.

Work occurring in an enclosed building, such as a house under construction with the roof and siding on, can occur at other times as well.

## PLACER COUNTY NOISE ORDINANCE

The Placer County Noise Ordinance (Article 9.36 of the Placer County Code), which was adopted in March 2004, defines sound-level performance standards for sensitive receptors. The ordinance forbids any person to create (or allow the creation of) sound on property he or she owns, leases, occupies, or otherwise controls that causes the exterior sound level—measured at the property line of any affected sensitive receptor—to exceed the ambient sound level by 5 dBA or exceed the standards shown in Table 10-8 below, whichever is greater.

<b>Table 10-8</b> <b>On-Site Sound Level Standards in the Placer County Noise Ordinance</b>		
<b>Sound Level Descriptor (dBA)</b>	<b>Daytime (7 a.m. to 10 p.m.)</b>	<b>Nighttime (10 p.m. to 7 a.m.)</b>
Hourly $L_{eq}$	55	45
$L_{max}$	70	65
Notes: dBA = A-weighted decibels; $L_{eq}$ = equivalent noise level (the 24-hour energy mean [average] noise level); $L_{max}$ = maximum noise level (the maximum instantaneous noise level during a specific period of time)		
Source: Placer County 2004		

Each of the sound-level standards specified in Table 10-8 shall be reduced by 5 dBA for simple tone noises, consisting of speech and music. However, in no case shall the sound-level standard be lower than the ambient sound level plus 5 dBA.

According to Section 9.36.030, “Exemptions,” some noise-generating activities are exempt from the above noise ordinance standards. These activities include construction that is performed between 6 a.m. and 8 p.m., Monday through Friday, and between 8 a.m. and 8 p.m. Saturday and Sunday, provided that all construction equipment is fitted with factory-installed muffler devices and maintained in good working order.

## 10.3 IMPACTS

### 10.3.1 ANALYSIS METHODOLOGY

Land use types and major noise sources in the vicinity of the project area were identified based on existing documentation (e.g., the *Placer County General Plan*) and site reconnaissance data. To assess potential short-term impacts from construction noise, noise-sensitive receptors and their relative exposure (considering topographic barriers and distance) were identified. Noise levels of specific construction equipment were determined and resultant noise levels at those receptors were calculated.

FHWA’s traffic noise prediction model was used to model traffic noise levels along affected roadways, based on daily volumes and the distribution of traffic, from the traffic analysis prepared for the project (Kd Anderson & Associates 2008). The contribution of the proposed project to the existing traffic noise levels along area roadways was determined by comparing the modeled noise levels at 50 feet from the centerline of the near travel lane under no-project and plus-project conditions.

Groundborne vibration impacts were qualitatively assessed based on existing documentation (e.g., vibration levels produced by specific construction equipment) and the distance of sensitive receptors from the given source.

Predicted noise levels were compared with applicable standards to determine significance. Mitigation measures were developed for significant noise impacts.

### 10.3.3 THRESHOLDS OF SIGNIFICANCE

Based on applicable Placer County noise regulations, the Placer County CEQA checklist, and the State CEQA Guidelines, the proposed project would result in a significant noise impact if it would:

- ▶ result in short-term noise levels from construction exceeding the applicable County noise standards (Table 10-6 and Table 10-7), or increase substantially (by greater than 3 dBA) ambient noise at nearby existing noise-sensitive receptors during the more sensitive early morning, evening, and nighttime hours of the day (i.e., outside the hours considered exempt by the Placer County Noise Ordinance [6 a.m.–8 p.m., Monday–Friday and 8 a.m.–8 p.m. Saturday and Sunday]);
- ▶ result in short-term (construction) or long-term (operational) noise levels from traffic exceeding the applicable County noise standards for transportation noise sources (Table 10-7), or increase substantially (by greater than 3 dBA) ambient noise levels at nearby existing noise-sensitive receptors;
- ▶ result in long-term (operational) noise levels from nontransportation stationary or area sources exceeding applicable County noise standards (Table 10-6 and/or Table 10-8), or increase substantially (by greater than 3 dBA) ambient noise at nearby existing noise-sensitive receptors; or
- ▶ expose persons to or generate excessive groundborne vibration or noise levels exceeding Caltrans’s recommended standards for preventing structural building damage (0.2 in/sec PPV and 0.08 in/sec PPV, respectively, for normal and historical buildings) or FTA’s maximum-acceptable vibration standard with respect to human response (80 VdB for residential structures) at nearby existing or proposed vibration-sensitive land uses (e.g., residences).

### 10.3.2 IMPACT ANALYSIS

IMPACT 10-1	Noise—Short-Term Construction-Generated Noise Levels Exceeding County Standards. <i>Short-term exterior noise levels at the closest existing noise-sensitive receptor could exceed 68 dBA without feasible noise controls, which would exceed the applicable County nighttime standard of 45 dBA at existing nearby off-site sensitive land uses. However, construction would be limited to daytime hours.</i>
Significance	<i>Less than Significant</i>
Mitigation Proposed	<i>None Warranted</i>
Residual Significance	<i>Less than Significant</i>

#### Regional Park Facility and Infrastructure Construction

Construction activities in the project area would include site preparation (e.g., clearing, excavation, and grading), staging, trenching, paving, equipment installation, finishing, cleanup, and other miscellaneous activities. No pile driving or rock blasting would occur as part of project construction.

The trails would be constructed by hand and/or with a small Sweco trail dozer. Hand construction of the trails would require one or more crews (up to approximately 15 members) using hand tools and chain saws. Other equipment used for trail construction would include a mini excavator, haul trucks, and other types of machinery (e.g., graders) that would fit the size constraints of the 15- to 20-foot-wide trail corridors. Larger equipment such

as graders, excavators, pavers, pneumatic tools, dozers, and haul trucks would be used to construct the proposed roads, parking areas, restrooms, and other facilities.

According to EPA, and as indicated in Table 10-9, noise levels from individual construction equipment ranges from 79 dBA to 91 dBA at 50 feet. The simultaneous operation of on-site construction equipment associated with the project, as identified above, could result in combined intermittent noise levels up to approximately 93 dBA at 50 feet from the construction activity. Based on the equipment noise levels and a typical noise-attenuation rate of 6 dBA/DD, exterior noise levels at the closest existing noise-sensitive receptor (located approximately 800 feet south of the project boundary) could exceed 68 dBA without feasible noise controls. Thus, if construction activities were to occur during the more noise-sensitive hours of the day (i.e., hours not exempt under the Placer County Noise Ordinance) or if construction equipment were not properly equipped with noise control devices, construction-generated noise levels could exceed the applicable County nighttime standard of 45 dBA (Table 10-8) and substantially increase ambient noise at existing nearby sensitive receptors.

<b>Table 10-9</b> <b>Typical Construction-Equipment Noise Levels</b>		
Type of Equipment	Noise Level (dBA) at 50 feet	
	Without Feasible Noise Control	With Feasible Noise Control <sup>1</sup>
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front-End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75
Compactor	81	75
Paver	89	80
Pavement Scarifier	90	-
Drill	98	80
Generator	78	75
Notes: dBA = A-weighted decibels <sup>1</sup> Feasible noise control includes the use of intake mufflers, exhaust mufflers, and engine shrouds in accordance with manufacturers' specifications. Sources: EPA 1971, FTA 2006, FHWA 2006		

However, as stated in Chapter 3.0, "Project Description," construction activities for the project would be limited to 6 a.m.–8 p.m., Monday–Friday, during daylight saving time and 7 a.m.–8 p.m. during standard time. Construction activities would be allowed between 8 a.m. and 6 p.m. on Saturdays, and construction activities that are inaudible in areas outside the Park may be permitted on Sundays. Construction equipment would be fitted with factory installed muffling devices. Construction activity that occurs during these hours by equipment fitted with factory installed muffling devices would be exempt from the provisions of the Placer County Noise Ordinance. This impact would be less than significant.

Construction of Garden Bar Road North Improvements

Construction activities along Garden Bar Road North would include road widening, striping, drainage improvements, curve realignment, and intersection improvements at Mt. Pleasant Road and Garden Bar Road North (see Chapter 8.0, “Transportation and Circulation,” for a complete description of proposed road improvements).

A complete list of equipment is not currently available; however, roadway improvements typically include a backhoe, compactor, dozer, excavator, pavement scarafier, paver, roller, pickup trucks, and haul trucks.

According to EPA, and as indicated in Table 10-9, noise levels from individual construction equipment range from 79 dBA to 91 dBA at 50 feet. The simultaneous operation of on-site construction equipment associated with the roadway improvements, as identified above, could result in combined intermittent noise levels up to approximately 90 dBA at 50 feet from the construction activity. Based on the equipment noise levels and a typical noise-attenuation rate of 6 dBA/DD, exterior noise levels at the closest existing noise-sensitive receptor (located approximately 50 feet from roadway improvement areas) could exceed 90 dBA without feasible noise controls. Thus, if construction activities were to occur during the more noise-sensitive hours of the day (i.e., hours not exempt under the Placer County Noise Ordinance), or if construction equipment were not properly equipped with noise control devices, construction-generated noise levels could exceed the applicable County nighttime standard of 45 dBA (Table 10-8) and substantially increase ambient noise levels at existing nearby sensitive receptors.

However, as stated in Chapter 3.0, “Project Description,” project construction activities would be limited to 6 a.m.–8 p.m., Monday–Friday during daylight saving time and 7 a.m.–8 p.m. during standard time. Construction activities would be allowed between 8 a.m.–6 p.m. on Saturdays. Construction activity that occurs during these hours would be exempt from the provisions of the Placer County Noise Ordinance. Therefore, this impact would be less than significant.

IMPACT 10-2	Noise—Increases in Long-Term (Operational) Noise Levels from Nontransportation Stationary and Area Sources. <i>Area-source noise may result from maintenance activities. However, exterior noise levels at the closest existing noise-sensitive receptor (800 feet) would not exceed 41 dBA. Such noise levels would not exceed any of the applicable County standards for daytime or nighttime noise, nor would they result in a substantial increase in ambient noise levels at nearby existing noise-sensitive receptors.</i>
Significance	<i>Less than Significant</i>
Mitigation Proposed	<i>None Warranted</i>
Residual Significance	<i>Less than Significant</i>

Use of the proposed Park would not result in the use of any new stationary sources of noise in the project area. However, area-source noise may result from maintenance activities, such as lawn mowing and vegetation clearing (lawn mowers, edgers, trimmers). According to EPA, such activities could result in noise levels reaching approximately 83 dBA at 3 feet from the source (from lawn mowers and trimmers), depending on the exact equipment type and size (EPA 1971). Based on these equipment noise levels and a typical noise-attenuation rate of 6 dBA/DD, exterior noise levels at the closest existing noise-sensitive receptor (800 feet) would not exceed 41 dBA. Noise sources associated with property maintenance (e.g., lawn mowers, edgers, power tools) that occur between 7 a.m. and 9 p.m. are also exempt from the Placer County Noise Ordinance. Use of maintenance equipment would be limited to these hours.

In addition, increased recreation use and associated noise (e.g., people talking, children playing, and visitors riding bicycles) would occur with implementation of the proposed project. Typical noise levels for human speech

are approximately 60 dBA (see Exhibit 10-2). Therefore, based on a typical noise-attenuation rate of 6 dBA/DD, exterior noise levels at the closest existing noise-sensitive receptor (800 feet) would not exceed 35 dBA.

Reservation-based events (e.g. cross country races, family and group outings) would also occur with implementation of the Park. Noise from these reservation-based events would increase the ambient noise level at surrounding areas, however, events would be short in duration (less than 1 day), occur at infrequent intervals, and during the less sensitive (daylight) hours of the day (7 a.m. to 8 p.m.). In addition, amplified sound would be prohibited during all events and activities in the Park. As a result, these reservation-based events would not cause a long-term substantial noise increase to occur.

Some overnight camping is also proposed for the Park. Camping activities would be centralized around the bunkhouses and campfire pits. Noise sources resulting from camping would include people talking. As stated above, human speech would not exceed 35 dBA at the nearest sensitive receptor, and thus would not cause an increase in ambient noise levels or exceed a County threshold (45 dBA). In addition, campers would be restricted by Park quiet hours from 10 p.m. to 7 a.m. to further reduce noise levels during noise-sensitive hours.

Hunting is also being proposed for up to two 2-day seasons per year with 10 hunting permits being issued per season or through depredation permits. Typical noise levels resulting from gunfire are approximately 120-140 dBA at 6 inches (Kardous, et al. 2003). Accounting for intervening topography and vegetation as well as distance, noise resulting from gunshots within the Park would not exceed the Placer County Noise Ordinance maximum noise level standards within 0.5-mile of any sensitive receptor (See Table 10-8). As stated in Chapter 3.0, "Project Description," no hunting would be allowed within 0.5-mile of a residence. Thus, the Placer County maximum noise level standard would not be exceeded.

Use of the Park could also include occasional use of the helistops by helicopters within the project area for emergencies. The use of the helistops would be very infrequent and would be limited to emergency use only. Although there would be an increase in noise in the project area if one or both of the helistops are used by helicopters, this increase in noise would be temporary and very infrequent and would not result in a substantial long-term increase in the ambient noise levels of the project area.

For the reasons stated above, noise associated with Park maintenance or recreational use would not exceed the daytime or nighttime noise standards—50 dBA and 45 dBA, respectively—established by the Placer County Noise Ordinance (Table 10-8), nor would it substantially increase ambient noise at nearby existing noise-sensitive receptors. As a result, this impact would be less than significant.

<b>IMPACT</b> <b>10-3</b>	<b>Noise—Increases in Transportation-Related Noise Levels.</b> <i>Short-term construction of the proposed Park would not result in a noticeable (i.e., 3 dBA or greater) increase in traffic noise levels along area roadways. Noise increases associated with construction traffic would be temporary and would occur during the less noise-sensitive daytime hours. Long-term traffic associated with project operation would not exceed Placer County standards but would result in a noticeable (i.e., 3 dBA or greater) increase in traffic noise levels along area roadways. Short- and long-term traffic-generated noise levels would not exceed applicable Placer County noise standards; however, long-term traffic would increase ambient noise at nearby existing noise-sensitive receptors.</i>
<b>Significance</b>	<i>Significant</i>
<b>Mitigation Proposed</b>	<i>Mitigation Measure 10-1: Restrict General Public Traffic to 6 a.m. to 30 Minutes after Sunset</i>
<b>Residual Significance</b>	<i>Less than Significant</i>

## Short-Term Construction-Related Traffic

As described in Chapter 8.0, “Transportation and Circulation,” construction of the proposed Park facilities would require approximately four 15-person crews and 10–15 other workers/delivery drivers on-site at any given time and 400 truck haul trips (distributed over several years) over the course of project construction. Assuming the crews would commute in four vans, one per 15-person crew, it is expected that the maximum number of vehicle trips generated in any one day would be four vans and 10–15 other worker/delivery vehicles. In addition, for Phase 1 of construction, truck traffic is expected to be approximately 10–20% of the total number of truck trips (i.e., 40–80 truck trips). Typically, roadway traffic volumes have to double to generate a noticeable increase in traffic noise levels. For this reason, adding these daily trips to the existing average daily traffic volumes (approximately 285 average daily trips on weekdays on Garden Bar Road North, 885 on Garden Bar Road South, 375 on Mt. Pleasant Road west of Garden Bar Road, 377 on Mears Drive north of Mt. Pleasant Road, and 910 on Mt. Pleasant Road east of Garden Bar Road) would not result in a noticeable traffic noise increase along these roadways or an exceedance of Placer County transportation noise source standards (see Table 10-7).

## Traffic Increases from Long-Term Use

In the long term, the Park could generate up to 460 one-way daily weekend vehicle trips on local roadways (dispersed over all affected roadways). The majority of trips associated with daily Park operations would occur during the less noise-sensitive daytime hours and on weekends and holidays during the summer months. However, some Park traffic could occur during noise-sensitive evening hours. Adding these daily trips to the existing average daily traffic volume of approximately 285 weekday and 260 weekend average daily trips on Garden Bar Road North would result in a substantial 3.7-dBA increase in noise on Garden Bar Road North (see Table 10-10). Although the overall noise level would not exceed Placer County standards for new interior or exterior transportation noise sources (see Table 10-7), or increase interior noise levels by more 3 dBA, it would increase exterior noise levels by a substantial amount (more than 3 dBA). All other affected roadways would not exceed Placer County standards (see Table 10-7) or increase substantially (more than 3 dBA).

<b>Table 10-10</b> <b>Comparison of Modeled Existing and Existing Plus Project Vehicular Traffic Noise Levels</b>					
Roadway Segment and Location	Average Daily Traffic		CNEL (dBA) 50 Feet from Centerline of Near Travel Lane		
	Existing	Existing Plus Project	Existing	Existing Plus Project	Net Change
<b>Weekday</b>					
Garden Bar Road <sup>1</sup> , north of Mt. Pleasant Road	285	476	47.9	50.1	2.2
Garden Bar Road, south of Mt. Pleasant Road	885	969	54.8	55.2	0.4
Mt. Pleasant Road, west of Garden Bar Road	375	457	53.4	54.2	0.9
Mt. Pleasant Road, east of Garden Bar Road	910	1,000	57.2	57.6	0.4
Mears Drive <sup>1</sup> , north of Mt. Vernon Road	377	441	49.1	49.8	0.7
<b>Weekend</b>					
Garden Bar Road <sup>1</sup> , north of Mt. Pleasant Road	260	605	47.5	51.2	3.7
Garden Bar Road, south of Mt. Pleasant Road	715	867	53.9	54.7	0.8
Mt. Pleasant Road, west of Garden Bar Road	310	458	52.5	54.2	1.7
Mt. Pleasant Road, east of Garden Bar Road	710	872	56.1	57.0	0.9
Mears Drive <sup>1</sup> , north of Mt. Vernon Road	314	429	48.3	49.7	1.4

**Table 10-10**  
**Comparison of Modeled Existing and Existing Plus Project Vehicular Traffic Noise Levels**

Notes: CNEL = community noise equivalent level; dBA = A-weighted decibels. Traffic noise levels were modeled using the Federal Highway Administration traffic noise model (FHWA 1988) based on traffic volumes obtained from the traffic report prepared for this project (Chapter 8.0, "Transportation and Circulation"). Calculated noise levels do not consider any shielding or reflection of noise by existing structures, vegetation, or terrain features, nor do they consider noise contribution from other sources. See modeling results in Appendix E further detail.

<sup>1</sup> Assumes that 75% of project-generated traffic would access the project site via North Garden Bar Rd and that 25% of project-generated traffic would access the project site via Mears Drive.

Source: Modeling performed by EDAW in 2008.

Short- and long-term traffic-generated noise levels would not exceed applicable County noise standards, but long-term exterior traffic noise levels would increase at nearby existing noise-sensitive receptors by more than 3 dBA on Garden Bar Road North. As a result, this impact would be significant. Implementation of Mitigation Measure 10-1 would reduce this impact to a less-than-significant level.

**IMPACT**      **Noise—Exposure of Persons to or Generation of Excessive Groundborne Vibration or Noise Levels.**  
**10-4**          *Ground vibration levels generated by on-site construction equipment would not exceed Caltrans's recommended standard of 0.2 in/sec PPV for the prevention of structural damage or FTA's maximum-acceptable vibration standard with respect to human annoyance for residential uses (80 VdB for residential structures). In addition, long-term use and maintenance of the project area would not include the operation of any sources of ground vibration. Thus, the proposed project would not result in the exposure of persons to or generate excessive groundborne vibration or groundborne noise levels.*

**Significance**    *Less than Significant*

**Mitigation**    *None Warranted*  
**Proposed**

**Residual**      *Less than Significant*  
**Significance**

Construction activities have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. Table 10-11 displays typical vibration levels for construction equipment.

**Table 10-11**  
**Typical Vibration Levels of Construction Equipment**

Equipment	PPV at 25 feet (in/sec) <sup>1</sup>	Approximate L <sub>v</sub> at 25 feet <sup>2</sup>
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58
Notes: in/sec = inches per second; L <sub>v</sub> = velocity level in decibels referenced to 1 microinch per second and based on the root mean square velocity amplitude; PPV = peak particle velocity Source: Federal Transit Administration 2006		



As discussed above, on-site construction equipment would include a Sweco trail dozer, trucks, excavators, and graders. As shown in Table 10-11, construction haul trucks generate ground vibration levels up to 0.076 in/sec PPV and 86 VdB (referenced to 1  $\mu$ in/sec and based on the RMS velocity amplitude) at a distance of 25 feet. Using FTA's recommended procedure for applying a propagation adjustment, truck-generated vibration levels would attenuate to approximately 0.0005 in/sec PPV and 41.8 VdB at the closest existing noise-sensitive receptor located 800 feet south of the project area. These vibration levels would not exceed Caltrans's recommended standard of 0.2 in/sec PPV (Caltrans 2002) with respect to the prevention of structural damage for normal buildings or FTA's maximum-acceptable vibration standard of 80 VdB (FTA 2006) with respect to human annoyance. In addition, the long-term operation of the proposed project (i.e., use and maintenance of the proposed Park) would not include any vibration sources. Thus, short-term construction and long-term operation would not result in the exposure of persons to or generate excessive groundborne vibration or groundborne noise levels. As a result, this impact would be less than significant.

## 10.4 Mitigation Measures

**Mitigation Measure 10-1: Restrict General Public Traffic to 6 a.m. to 30 Minutes after Sunset.**

*Mitigation Measure 10-1 applies to Impact 10-3.*

The County shall restrict all long-term general public traffic to 6 a.m. to 30 minutes after sunset by ensuring that the Park gates are closed and locked at these times. With implementation of Mitigation Measure 10-1 traffic noise level increases on Garden Bar Road North would be reduced below a substantial amount (3 dBA or more), as shown in Table 10-12. This would reduce Impact 10-3 to a less-than-significant level.

<b>Table 10-12</b> <b>Comparison of Modeled Existing and Existing Plus Project Plus Mitigation Measure 10-1</b> <b>Vehicular Traffic Noise Levels</b>					
Roadway Segment and Location	Average Daily Traffic		CNEL (dBA) 50 Feet from Centerline of Near Travel Lane		
	Existing	Existing plus Project	Existing	Existing plus Project plus Mitigation Measure 10-1	Net Change
<b>Weekday</b>					
Garden Bar Road <sup>1</sup> , north of Mt. Pleasant Road	285	476	47.9	49.2	1.3
Garden Bar Road, south of Mt. Pleasant Road	885	969	54.8	55.2	0.2
Mt. Pleasant Road, west of Garden Bar Road	375	457	53.4	54.3	0.5
Mt. Pleasant Road, east of Garden Bar Road	910	1,000	57.2	57.7	0.2
Mears Drive <sup>1</sup> , north of Mt. Vernon Road	377	441	49.1	49.8	0.4
<b>Weekend</b>					
Garden Bar Road <sup>1</sup> , north of Mt. Pleasant Road	260	605	47.5	50.4	2.3
Garden Bar Road, south of Mt. Pleasant Road	715	867	53.9	54.8	0.5
Mt. Pleasant Road, west of Garden Bar Road	310	458	52.5	54.3	1.0
Mt. Pleasant Road, east of Garden Bar Road	710	872	56.1	57.1	0.5
Mears Drive <sup>1</sup> , north of Mt. Vernon Road	314	429	48.3	49.7	0.8

Notes:

CNEL = community noise equivalent level; dBA = A-weighted decibels. Traffic noise levels were modeled using the Federal Highway Administration traffic noise model (FHWA 1988) based on traffic volumes obtained from the traffic report prepared for this project (Chapter 8.0, "Transportation and Circulation"). Calculated noise levels do not consider any shielding or reflection of noise by existing structures, vegetation, or terrain features, nor do they consider noise contribution from other sources. See modeling results in Appendix E further detail.

<sup>1</sup> Assumes that 75% of project-generated traffic would access the project site via North Garden Bar Rd and that 25% of project-generated traffic would access the project site via Mears Drive.

Source: Modeling performed by EDAW in 2008.

## 11.0 HYDROLOGY AND WATER QUALITY

This chapter evaluates the potential impacts of the proposed project on hydrology and water quality. It describes the existing hydrologic conditions in the project area; presents a summary of the federal, state, and local regulatory context; analyzes the impacts of the proposed project facilities on hydrology and water quality; and provides feasible mitigation measures needed to reduce those impacts.

### 11.1 ENVIRONMENTAL SETTING

#### 11.1.1 REGIONAL HYDROLOGY

The project area is located within the south-central portion of the Sacramento River Hydrologic Region, as defined by the California Department of Water Resources (DWR). The Sacramento River Hydrologic Region covers approximately 17.4 million acres (27,200 square miles). The region includes all or large portions of Modoc, Siskiyou, Lassen, Shasta, Tehama, Glenn, Plumas, Butte, Colusa, Sutter, Yuba, Sierra, Nevada, Placer, Sacramento, El Dorado, Yolo, Solano, Lake, and Napa Counties. Small areas of Alpine and Amador Counties are also within the region. Geographically, the region extends south from the Modoc Plateau and Cascade Range, at the Oregon border, to the Sacramento–San Joaquin River Delta.

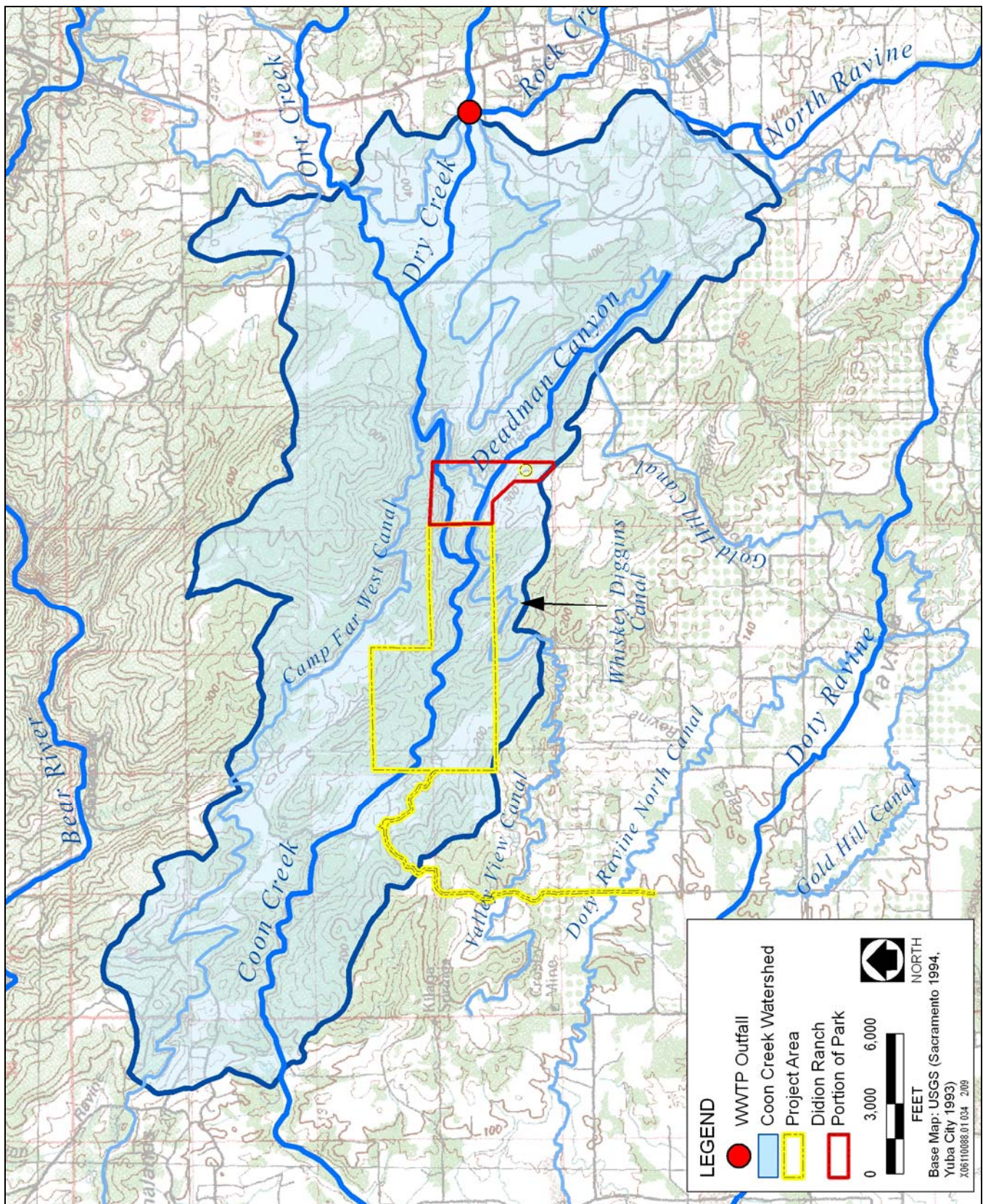
The Sacramento Valley, which forms the core of the region, is bounded to the east by the crest of the Sierra Nevada and southern Cascades and to the west by the crest of the Coast Range and Klamath Mountains. Other significant features include Mount Shasta and Lassen Peak in the southern Cascades; the Sutter Buttes in the south-central portion of the valley; and the Sacramento River and its major tributaries, the Pit, Feather, Yuba, Bear, and American Rivers (DWR 2003).

#### 11.1.2 DESCRIPTION OF THE LOCAL WATERSHED

The project area is situated in the Coon Creek watershed. It includes a reach of Coon Creek that is in a steep canyon running east-west approximately 3 miles south of the Bear River. Coon Creek flows from the eastern portion of the Spears Ranch portion of the Park to the westernmost property boundary. Several intermittent tributaries flow into Coon Creek from both the north and the south, and one perennial tributary, Deadman Creek, intersects Coon Creek on the eastern end of the property. Adjacent land uses are rural residential home sites and agriculture, mostly in the form of cattle grazing and recreational uses on the Didion Ranch portion of the Park. Exhibit 11-1 shows the local watershed and hydrology in the project vicinity.

The Coon Creek watershed originates in the foothills northeast of the town of Auburn. The upper watershed (east of State Route 49) is composed mainly of two intermittent tributaries, Dry Creek and Orr Creek, which merge approximately 6 miles upstream of the project area to form Coon Creek. Downstream of this confluence, Coon Creek has continuous flow in the dry season and receives discharge of treated effluent into Rock Creek from the Placer County Department of Facility Services Wastewater Treatment Plant (WWTP) operated by Placer County Sewer Maintenance District 1 near State Route 49 (Waste Discharge Requirements [WDR] Order No. R5-2005-0074, NPDES No. CA0079502). Rock Creek is a tributary of Dry Creek (Bailey and Buell 2005) and the discharge results in approximately 1.65 million gallons per day (mgd) (2.56 cubic feet per second [cfs]) of daily inflow to Coon Creek. The WDR regulates the treatment of up to 2.18 mgd of design dry weather flow wastewater, and the discharge of the treated wastewater. In addition, 5 cfs of dilution water purchased from Nevada Irrigation District is added to the Rock Creek flow and proceeds into Coon Creek during the summer and fall months. Coon Creek then flows west through a rural residential area and into the project area. Exhibit 11-1 shows the existing WWTP outfall location.





Source: CalWaters 1999, Placer County 2006

## Watershed Hydrology Topo Map

Exhibit 11-1

The WWTP currently provides tertiary treatment when influent flows are 3.5 mgd or less, and when flows are above 3.5 mgd a combination of secondary and tertiary treated wastewater is released as stipulated in the WDR. The WDR assumes that the worst-case dilution in Rock Creek and Dry Creek (which drains to Coon Creek) is zero in order to provide protection for the beneficial uses. This means that discharge limitations based on acute and chronic toxicity are end-of-pipe limits, with no dilution credit provided by the receiving water.

The adjacent land is used for grazing and minimal infrastructure has been developed in this area. Vegetation associated with this reach of Coon Creek consists of a combination of oak and riparian woodlands and some open wetland floodplain terraces. The stream channel is dominated by basalt and granite bedrock and large cobble. West (downstream) of the Spears Ranch portion of the Park, for approximately 5 miles, the channel and riparian corridor are heavily affected by cattle grazing, which can result in consumption of new vegetation, trampling of vegetation, compaction of soils, acceleration of bank erosion, and contribution of nutrients to streams via excretion. As a result, water quality within these downstream reaches of the stream deteriorates precipitously. The remainder of the stream channel (down to its confluence with the East Side Canal) is narrow and generally shallowly incised as it meanders through intensively farmed floodplains (Placer County 2002). The East Side Canal ultimately drains into the Natomas Cross Canal, which enters the Sacramento River just below the confluence with the Feather River.

Nutrients in the effluent from Placer County Sewer Maintenance District 1's WWTP contribute significantly to the nutrient load of Coon Creek and may cause accelerated growth of algae, as well as depressed nighttime concentrations of dissolved oxygen. Cattle grazing along lower Coon Creek downstream of the Park also contributes to the nutrient load and biological oxygen demand of the creek (Placer County 2002).

Approximately 1 mile east of the eastern border of the Spears Ranch portion of the Park, a diversion dam operated by the Nevada Irrigation District diverts water for irrigation from Coon Creek into Camp Far West Canal. Most of the water flows to the Bear River (approximately 2.5 miles north of the project area), just upstream of the confluence with the Feather River. A small portion flows into Camp Far West Reservoir approximately 4 miles northwest of the project area. The distance from Coon Creek to the Sacramento River is approximately 30 miles.

Deadman Creek, Whiskey Diggins Canal, and associated tributaries also transect the Spears Ranch portion of the Park. The Whiskey Diggins Canal passes through the southern portion of the Spears Ranch property and crosses Deadman Creek within the Didion Ranch portion of the Park. The canal was constructed in the 1850s by the Gold Hill and Bear River Water Company to divert water from Deadman Creek. The canal is now maintained and utilized by the Nevada Irrigation District, and flows to the canal are seasonal depending upon water diversion practices. The water is used for irrigation. A maintenance road parallels the canal on the downslope side. Deadman Creek flows into Coon Creek near the eastern boundary of the Spears Ranch portion of the Park.

### **11.1.3 GROUNDWATER**

The Sacramento River Hydrologic Region receives between 20% and 40% of its supply from groundwater. Groundwater quality in the region is generally considered to be excellent; however, there are small localized problems (DWR 2003). The project area does not lie within an area defined by DWR as a discrete groundwater basin. Local groundwater conditions consist of fractured rock substrate and recharge from Coon Creek, and regional groundwater levels are expected to be greater than 50 feet in depth. Groundwater supplies from fractured rock sources are highly variable in terms of water quantity, as well as water quality because of historic mining practices in the region. Current water development in the project vicinity is in the form of individual private wells that provide drinking water for residences and irrigation. Based on Placer County well reports in the area, wells range in depth from 250 to 900 feet. Where static water levels were noted, they ranged between 50 and 240 feet and well yields ranged from 1.3 to 7 gallons per minute (gpm). The nearest private well is approximately 0.2-mile from the facility development zone.



The existing groundwater well on-site is capable of producing 2.1 gallons per minute and was constructed to serve the existing ranch house within the Spears Ranch portion of the Park. A groundwater well is also located within the Didion Ranch portion of the Park that provides water for the drinking fountains, restroom, and irrigation within that portion of the Park. The water demand calculation prepared for the proposed project requires a minimum maximum day demand (MDD) of 4.7 gpm and a peak hour demand (PHD) of 7.1 gpm; that includes a 20% contingency for the entire project (Appendix F). The water demand calculation needs were based on wastewater usage and proposed project facilities, including existing facilities being supported by the existing well. The proposed facility needs include:

- ▶ one parking area of similar size to the Didion Ranch parking area,
- ▶ existing house to provide service for 60 overnight campers, five staff members and one commercial kitchen. No shower or laundry facilities,
- ▶ one maintenance yard,
- ▶ one caretaker residence.

## **11.2 REGULATORY SETTING**

### **11.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS**

#### **FEDERAL EMERGENCY MANAGEMENT AGENCY**

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA; the minimum level of flood protection for new development has been determined to be protection against the flood with a 1-in-100 chance of occurring in a given year (i.e., the 100-year flood event). The proposed project is not located within a FEMA 100-year flood zone; however, portions of the project area are within the 100-year floodplain of Coon Creek.

#### **FEDERAL CLEAN WATER ACT OF 1972**

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA and the states. Various elements of the CWA, discussed below, address water quality. Wetland protection elements administered by the U.S. Army Corps of Engineers under Section 404 of the CWA, including permits to dredge or fill wetlands, are discussed in Chapter 12.0, “Biological Resources.”

#### **WATER QUALITY CRITERIA AND STANDARDS**

Under federal law, EPA has published water quality regulations under Title 40 of the Code of Federal Regulations (40 CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: identified designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. In California, EPA has granted the State Water Resources Control Board (SWRCB) and its nine regional water quality control boards (RWQCBs) the authority to identify beneficial uses and adopt applicable water quality objectives.

## **NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT PROGRAM**

The National Pollutant Discharge Elimination System (NPDES) permit program was established to regulate municipal and industrial discharges to surface waters of the United States. The discharge of wastewater to surface waters is prohibited unless an NPDES permit issued by the applicable RWQCB allows that discharge. NPDES permit regulations have been established for broad categories of discharges—point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify allowable concentrations of effluent in receiving waters or limits on pollutant emissions contained in discharges, or both; prohibit discharges not specifically allowed under the permit; and describe required actions by the discharger, including industrial pretreatment, pollution prevention, and self-monitoring.

In November 1990, EPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase 1 of the permitting program applies to municipal discharges of stormwater in urban areas where the population exceeds 100,000 persons. Phase 1 also applies to stormwater discharges from a large variety of industrial activities, including general construction activities if the project would disturb more than 5 acres. Phase 2 of the NPDES stormwater permit regulations, which became effective in March 2003, require that NPDES permits be issued for construction activities for projects that disturb between 1 and 5 acres. The RWQCBs in California are responsible for implementing the NPDES permit system (see additional information under “NPDES Permit System and Waste Discharge Requirements” below).

### **SECTION 401 WATER QUALITY CERTIFICATION OR WAIVER**

Under Section 401 of the CWA, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state’s water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirement is delegated by the SWRCB to the nine RWQCBs.

### **SECTION 303(D) IMPAIRED WATERS LIST**

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that would not attain water quality objectives for specific pollutants after point-source dischargers (municipalities and industries) implement required levels of treatment. Coon Creek is not listed as a Section 303(d) impaired water body. The Central Valley Basin Plan states at page II-2.00 that the “...beneficial uses of any specifically identified water body generally apply to its tributary streams.” The beneficial uses of Coon Creek are not individually identified in the Basin Plan, but Coon Creek is a tributary to Natomas East Main Drainage Canal, which flows into the Sacramento River immediately north of the confluence with the American River. Existing beneficial uses for these receiving waters, and therefore Coon Creek, are municipal and domestic supply, agricultural irrigation, water contact recreation, canoeing and rafting recreation, other non-contact water recreation, warm freshwater aquatic habitat, cold freshwater aquatic habitat, warm fish migration habitat, cold fish migration habitat, warm and cold spawning habitat, wildlife habitat, and navigation. In addition, pursuant to SWRCB Resolution No. 88-63 described below, the beneficial uses of Coon Creek (and Rock and Dry Creeks) are municipal and domestic supply.

## **11.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS**

In California, the SWRCB has broad authority over water quality control issues for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the CWA. Other state agencies with jurisdiction over water quality regulation in California include the California Department of Health Services (DHS) (for drinking-water regulations), the California Department of Pesticide Regulation, the California Department of Fish and Game, and the Office of Environmental Health Hazard Assessment.

Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans (Basin Plans) for all areas in the region and establish water quality objectives in the plans. The Central Valley RWQCB is responsible for the water bodies in the project vicinity.

## **PORTER-COLOGNE WATER QUALITY CONTROL ACT OF 1969**

Both surface and groundwater in the Spears Ranch portion of the Park could potentially be affected by implementation of the project. The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is California's statutory authority for the protection of water quality. Under the act, the state must adopt water quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update Basin Plans. Basin Plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The act also requires waste dischargers to notify the RWQCBs of their activities through the filing of reports of waste discharge (RWDs) and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWD/WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

## **STATE WATER RESOURCES CONTROL BOARD RESOLUTION No. 88-63**

Resolution No. 88-63, Sources of Drinking Water Policy, adopted on 19 May 1988, specifies that, except under specifically defined exceptions, all surface and ground waters of the state are to be protected as existing or potential sources of municipal and domestic supply, including those within the proposed Project. Because Coon Creek is not identified in Table II-1 of the Basin Plan, this resolution applies. The specific exceptions include waters with:

- ▶ existing high total dissolved solids concentrations (greater than 3000 mg/l),
- ▶ low sustainable yield (less than 200 gpd for a single well),
- ▶ contamination that cannot be treated for domestic use using best management practices or best economically achievable treatment practices,
- ▶ waters within particular municipal, industrial and agricultural wastewater conveyance and holding facilities, and
- ▶ regulated geothermal ground waters.

Where the SWRCB or RWQCBs determines that one of the exceptions applies for a particular waterbody, it may remove the municipal and domestic supply beneficial use designation through a formal Basin Plan amendment and a public hearing, followed by approval of the amendment by the SWRCB and the Office of Administrative Law.

## **NPDES PERMIT SYSTEM AND WASTE DISCHARGE REQUIREMENTS**

The SWRCB and Central Valley RWQCB have adopted specific NPDES permits or WDRs, or both, for a variety of activities that have the potential to discharge wastes to waters of the state or to land. Dischargers are required to eliminate or reduce nonstormwater discharges to storm sewer systems and other waters. The SWRCB's statewide stormwater permit for general construction activity (Order 99-08-DWQ, as amended) is applicable to all land-



disturbing construction activities that would disturb more than 1 acre, including the proposed project. Construction activities such as clearing, grading, stockpiling, and excavation are subject to the statewide general construction activity NPDES permit. The proposed project would expose more than 1 acre of area to stormwater runoff and thus would require an NPDES stormwater permit for general construction activity.

The NPDES permit requires that a notice of intent be filed with the RWQCB to discharge stormwater and that a storm water pollution prevention plan be prepared and implemented to control contaminated runoff from temporary construction activities. The plan provides specifications for erosion and sediment best management practices (BMPs), means of waste disposal, methods for implementing approved local plans, postconstruction sediment and erosion control BMPs and maintenance responsibilities, nonstormwater management BMPs, and requirements for inspecting the performance of BMPs.

NPDES permits require that design and operational BMPs be implemented to reduce the level of contaminant runoff during construction. The permit also requires dischargers to consider the use of permanent postconstruction BMPs that will remain in service to protect water quality throughout the life of the project. Types of BMPs include source controls, treatment controls, and site planning measures.

The NPDES regulations also require that appropriate hazardous materials management practices be implemented to reduce the possibility of chemical spills or release of contaminants, including any nonstormwater discharge to drainage channels.

In the event that water discharges occur in Coon Creek crossing areas during construction, construction dewatering activities that discharge to surface waters require NPDES authorization under the RWQCB's General Order for Dewatering and Other Low-Threat Discharges to Surface Waters (Order No. 5-00-175). This permit requires the applicant to submit a notice of intent before the activity verifying that the dewatering will occur in compliance with applicable water quality objectives. It contains terms and conditions for discharge prohibitions, specific effluent and receiving-water-quality limits, solids disposal activities, and water quality monitoring protocols. The permit authorizes direct discharges to surface waters of up to 250,000 gpd for no more than a 4-month period each year.

The Central Valley RWQCB may also issue site-specific WDRs, or waivers to WDRs, for certain waste discharges to land or waters of the state. In particular, RWQCB Resolution R5-2003-0008 identifies activities subject to waivers of RWDs or WDRs, or both, for a variety of activities, including minor dredging activities and construction dewatering activities that discharge to land.

All NPDES permits have inspection, monitoring, and reporting requirements. In Resolution 2001-046, the Central Valley RWQCB responded to a court decision by implementing mandatory water-quality sampling requirements for visible and nonvisible contaminants in discharges from construction activities. Water-quality sampling is now required if the activity could result in the discharge of turbid water or sediment to a water body that is listed as impaired under Section 303(d) because of sediment or siltation, or if a release of a nonvisible contaminant occurs. Where such pollutants are known or should be known to be present and have the potential to contact runoff, sampling and analysis are required.

## **SAFE DRINKING WATER ACT**

Proposed project features include groundwater wells for domestic supplies and landscape irrigation. Under the Safe Drinking Water Act (Public Law 93-523), passed in 1974, EPA regulates contaminants of concern to domestic water supplies. Contaminants of concern that are relevant to domestic water supplies are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA national primary and national secondary drinking water regulations. Maximum contaminant levels (MCLs) are set for all contaminants of concern. MCLs and the process for setting

these standards are reviewed triennially. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking-water MCLs.

EPA has delegated to DHS the responsibility for administering California's drinking-water program. DHS is accountable to EPA for program implementation and for adopting standards and regulations that are at least as stringent as those developed by EPA.

Title 22 of the California Code of Regulations (Article 16, Section 64449) defines secondary drinking-water standards that are established primarily for reasons of consumer acceptance (i.e., taste), rather than because of health issues. For mineralization (i.e., total dissolved solids and chloride), the secondary standards are expressed in the form of recommended, upper, and short-term MCLs. The recommended, upper, and short-term MCLs for total dissolved solids are 500, 1,000, and 1,500 milligrams per liter, respectively.

## **GROUNDWATER WELLS**

Proposed project features include new groundwater wells for domestic supplies and landscape irrigation. Section 13801 of the California Water Code requires the SWRCB to adopt a model ordinance and each county, city, or water agency to adopt ordinances for well placement, construction, and abandonment that meet or exceed DWR standards (California Water Code Section 231). Standards for wells in California are found in DWR Bulletins No. 74-81 and No. 74-90, entitled "Water Well Standards, State of California."

## **11.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES**

### **PLACER COUNTY GENERAL PLAN**

The following are the relevant goals and policies identified by the *Placer County General Plan* (General Plan) (Placer County 1994) for hydrology and water quality.

**Goal 6.A:** To protect and enhance the natural qualities of Placer County's streams, creeks and groundwater.

- ▶ **Policy 6.A.4.e.** Where creek protection is required or proposed, the County should require public and private development to: use design, construction, and maintenance techniques that ensure development near a creek will not cause or worsen natural hazards (such as erosion, sedimentation, flooding, or water pollution) and will include erosion and sediment control practices such as: 1) turbidity screens and other management practices, which shall be used as necessary to minimize siltation, sedimentation, and erosion, and shall be left in place until disturbed areas; and/or are stabilized with permanent vegetation that will prevent the transport of sediment off site; and 2) temporary vegetation sufficient to stabilize disturbed areas.
- ▶ **Policy 6.A.7.** The County shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.

## **11.3 IMPACTS**

### **11.3.1 ANALYSIS METHODOLOGY**

The environmental analysis for hydrology and water quality was based largely on background information included in the General Plan and California's Groundwater Bulletin 118 (DWR 2003), as well as a review of existing conditions of the project vicinity. The effects of the proposed project were compared to environmental baseline conditions (i.e., existing setting at the time of the NOP) to determine impacts.

### 11.3.2 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on hydrology or water quality if it would:

- ▶ violate any water quality standards or waste discharge requirements;
- ▶ substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- ▶ substantially alter the existing drainage pattern of the site or area;
- ▶ create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- ▶ otherwise substantially degrade water quality;
- ▶ place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- ▶ expose people to unsafe water quality from contact recreation;
- ▶ expose people or structures to a significant risk of loss, injury, or death involving flooding; or
- ▶ expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.

### 11.3.3 IMPACT ANALYSIS

**IMPACT 11-1**      **Hydrology and Water Quality—Potential for Short-Term, Construction-Related Soil Erosion and Impairment of Water Quality.** *Project construction could cause short-term degradation of water quality. Areas where vegetation would be removed and topography altered could be subject to erosion from rain and wind. In addition, accidental spills of construction-related contaminants could occur during construction in the project area. Both of these mechanisms could carry soil and construction-related contaminants to on-site drainages before they are ultimately discharged to Coon Creek.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 11-1: Prepare and Implement a Grading and Drainage Plan; and Mitigation Measure 5-1 in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required*

**Residual Significance**      *Less than Significant*

Construction of the proposed project would remove vegetation and disturb soil at some locations within the project area, including along Garden Bar Road. Grading of the access road, parking areas, and bridge footings would disturb a total estimated area of approximately 4.5 acres. Grading of the trail system would disturb approximately 10 acres of land in linear construction corridors distributed around the Park along the proposed trail alignments. Vegetation removed during construction would be chipped or lopped and broadcast in the

immediate area. Vegetation removed at parking areas would be stockpiled and following construction, used as mulch on exposed areas.

Removal of duff and vegetation would expose bare soil and could cause unstable conditions, resulting in soils that are easily disturbed by equipment and eroded by rain and wind. This could affect surface water quality in Coon and Deadman Creeks and other drainages because of erosion and sedimentation from project construction. Although the majority of gradients in the project area never exceed 20%, the gradients of some areas of the canyon straddling Coon Creek approach 50%. In addition, some soils in the project area have moderate to high erosion potential, which could result in erosion of surface soils during construction.

Accidental spills of construction-related contaminants such as fuels, oils, solvents, and cleaners could also occur during construction activities in the project area, resulting in degradation of water quality. Runoff from the areas disturbed by construction of the proposed Park facilities could also result in sedimentation effects on intermittent drainages and Coon Creek. This impact would be potentially significant, because the construction areas are close enough to the creeks, that spills or eroded sediment could reach the waterways. Implementation of Mitigation Measures 11-1 and 5-1 would reduce this impact to a less-than-significant level.

<b>IMPACT</b> 11-2	<b>Hydrology and Water Quality—Potential for Long-Term Soil Erosion and Impairment of Water Quality.</b> <i>Use of the proposed trail system and extreme weather events could cause long-term degradation of water quality from soil erosion and creek sedimentation. The introduction of impervious surfaces on-site such as the access road and parking areas has the potential to alter existing absorption rates and increase runoff of surface water into Coon Creek and other drainages on-site.</i>
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<b>Significance</b>	<i>Potentially Significant</i>
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<b>Mitigation Proposed</b>	<i>Mitigation Measure 11-1: Prepare and Implement a Grading and Drainage Plan; and Mitigation Measure 5-1 in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities from the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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Portions of the proposed project would be constructed in areas with some steep slopes that have the potential for erosion. Approximately 14 miles of new natural-surface trails for hikers, bikers, and equestrians—including bridge crossings over Coon Creek, Deadman Creek, and other streams—would be in place. Areas from which vegetation has been removed could be subject to erosion from rain and wind. These mechanisms could carry soil into intermittent drainages before they are ultimately discharged to Coon Creek. The proposed trails would be maintained as an exposed dirt surface that would increase the amount of soil exposed to wind and water erosion. Extreme weather events in combination with the disturbed areas could increase erosion and decrease water quality. This impact is considered potentially significant.

The proposed trail alignments would generally follow contours to minimize grades, discourage erosion from water velocity on steep profiles, and protect natural resources. Long-term and ongoing maintenance activities, as described in Chapter 3.0, "Project Description," would also be performed on the trails and trail crossings to reduce erosion to the extent possible and to repair weather-related damage that could contribute to erosion. Implementation of Mitigation Measures 5-1 and 11-1 would further reduce this impact to a less-than-significant level.

**IMPACT 11-3**      **Hydrology and Water Quality—Change in the Quality of Groundwater related to Installation of a Septic System.** *Operation of two septic systems is proposed as part of the project. There is the potential that installing an on-site septic system could change the quality of the groundwater in the Spears Ranch portion of the Park, if the septic system is not sited properly. Although suitable soils have been identified on-site, the potential still exists for changes in groundwater quality to occur.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 11-2: Implement Groundwater Protection through a Transient Non-community Water System Permit*

**Residual Significance**      *Less than Significant*

The project proposes to construct and operate two septic systems (use and/or upgrade of the existing septic system at ranch house and a new septic system to serve the western parking area) to dispose of effluent generated by on-site restroom facilities and group-use facilities (e.g., conference center, nature center, caretaker facilities). The new septic system(s) would be located in the southwest portion of the Park within the facility development zone. The existing septic system would remain operational without changes, if the ranch house is used as a one dwelling unit or equivalent. If the ranch house is used for other more extensive purposes, the existing septic system would be upgraded to meet sewage treatment demand.

As discussed in Chapter 5.0 “Soils, Geology, and Seismicity,” soil data provided by the U.S. Geological Survey indicate limitations on the ability of project area soils to support the use of septic tank absorption fields (i.e., leachfields), in which effluent from a septic tank is distributed into the soil through subsurface or perforated pipe. There is the potential that installing an on-site septic system could change the quality of the groundwater in the Spears Ranch portion of the Park if the septic system is not sited properly. On-site soil testing completed as part of the project indicated soils in the southwest portion of the Park are capable of supporting a conventional septic system that would be sized to accommodate maximum daily use. In addition, the septic system would be designed to have a 5-foot separation to groundwater or impermeable layer from leach lines, 150-foot setback from public wells, and 100-foot setback from any creeks (Placer County 2006).

Although on-site soils are capable of supporting a septic system, there is still the potential for the new or existing septic systems to change groundwater quality. This impact would be potentially significant. Implementation of Mitigation Measure 11-2 would reduce this impact to a less-than-significant level.

**IMPACT 11-4**      **Hydrology and Water Quality—Change in the Supply and Availability of Groundwater through Withdrawals, Interception, or Loss of Recharge Capacity.** *While soil compaction from constructed facilities could slightly impede recharge in localized areas, less than 5 acres of the project area would be developed with impervious surfaces. Installation of groundwater wells for uses related to the proposed facilities could increase the demand for groundwater; however, project-related groundwater demand would not be substantial and is similar to yield rates found in private wells in the project vicinity. However, the proposed project-related water needs include water necessary for fire suppression and the 2009 water demand calculation report did not evaluate project requirements related to fire suppression. This impact would be potentially significant.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**    *Mitigation Measure 11-2: Implement Groundwater Protection through a Transient Non-community Water System Permit; and Mitigation Measure 11- 3: Calculate Water Demands for Fire Suppression.*

**Residual Significance**    *Less than Significant*

Constructing access roads, parking areas, and the trail system would result in soil compaction, which has the potential to affect groundwater recharge. In addition, parking areas and access roads would ultimately be paved with an impervious surface, which can also affect the potential for groundwater recharge. The total estimated acreage of impervious surface would be 4.5 acres within the project area. Because the amount of impervious surfaces would be a very small percentage of the total recharge area, this would not have a significant impact on groundwater recharge and supply.

The proposed project would include installation of up to two groundwater wells to support proposed facilities. If all of the proposed facilities are to be installed, the proposed project requires a MMD of 4.7 gpm and a PHD of 7.1 gpm (including 20% contingency). A new well would be constructed in the western portion of the Park to serve the western parking area, drinking fountains, and restrooms. Project-related needs in this area is an estimated MDD of 0.25 gpm and a PHD of 0.37 gpm, much lower than well yields found in project vicinity wells (between 1.3 and 7 gpm). Project-related water needs in the area of the existing ranch house are estimated to be a MDD of 3.61 gpm and a PHD of 5.41 gpm. An existing groundwater well in this location produces approximately 2.1 gpm; therefore, it is expected that an additional well would be needed to support all proposed project-related water needs in this area. The expected water demand for large events (i.e., 200 or more individuals) would vary depending on the number of users; however, the County would require large event groups that would exceed the on-site water supplies to supply (i.e., carry in) potable water to serve the group as a term of the Temporary Event Permits and undergo separate environmental review. Water for irrigation would continue to be supplied by the Nevada Irrigation District canal on the property, and irrigation needs are expected to be similar to or less than past irrigation patterns.

The project does not propose extensive water development. Except for reservation-based events, water supplies to meet project facility needs are expected to be small because the most common uses of the Park would reflect typical patterns of passive recreation (i.e., infrequent use of the Park by large groups, with most use by individuals visiting the Park for dispersed recreation, mostly on weekends). Although, the exact location of the new well is not known, it would be sited within the facility development zone (see Exhibit 3-4 in Chapter 3.0, “Project Description”), and the nearest private well is approximately 0.2-mile from the facility development zone. A new well in this area would not be expected to have any water supply or drawdown effects on nearby private wells based on the calculations in the water demand report being consistent with private well yields in the area (Appendix F). The 2009 water demand calculation report did not evaluate project requirements related to fire suppression. Although it is expected that raw surface irrigation water would be the primary source of emergency fire suppression water storage and that any combination of surface irrigation water, water from stock ponds, and/or groundwater could be used to accommodate water demands for fire suppression, if groundwater is needed for fire suppression, this impact could be potentially significant. If public well(s) would be used to supply emergency storage tanks, appropriate backflow prevention devices would be used to prevent cross contamination of public potable water sources. Implementation of Mitigation Measures 11-2 and 11-3 would reduce this impact to a less-than-significant level.

**IMPACT 11-5**      **Hydrology and Water Quality—Exposure of People or Structures to Flooding.** *Constructing Park facilities adjacent to or across Coon Creek could expose people and structures to flooding. Park facilities potentially exposed to flooding would be constructed to weather the flows. No housing would be constructed in the floodplain, and access to the floodplain would be restricted in the event of a flood.*

**Significance**      *Less than Significant*

**Mitigation Proposed**      *None Warranted*

**Residual Significance**      *Less than Significant*

Park visitors would have access to the Coon Creek floodplain in the Spears Ranch portion of the Park. Portions of the trail system would run parallel to and cross over the creek. Three bridges with architectural features potentially including suspension and/or covered bridge that would provide access for pedestrians, equestrians, and emergency vehicles—would be constructed across Coon Creek. Bridges would be constructed of weathered steel, fiberglass, or other materials with concrete abutments, and potentially (if a suspension bridge is constructed) steel cables, and they would be constructed to span the 100-year floodplain, be removable during flood periods, or withstand 100-year flood events. Existing low-flow crossings along existing roads would also be maintained across Coon Creek. No housing or other structures would be constructed within the floodplain.

Park users could be exposed to flooding if they were near Coon Creek during a major (i.e., >100-year) flood event. However, the Coon Creek bridge crossings would be temporarily closed during such an event to reduce potential hazards. If extensive flooding were to occur, the County may close all or portions of the Park if it is deemed unsafe for Park users.

Because no housing or other facilities would be constructed within the floodplain, bridges would be constructed to withstand flood events, and access would be restricted to Coon Creek in the event of a flood, this impact would be less than significant.

**IMPACT 11-6**      **Hydrology and Water Quality—Exposure of People or Structures to WWTP Effluent.** *Proposed Park facilities would allow people to come into contact with Coon Creek and Whiskey Diggins Canal, which receive effluent (indirectly) from the Placer County SMD 1 WWTP. However, the WWTP operates under an NPDES Permit requiring tertiary treatment protective of beneficial uses including contact and noncontact recreation. Therefore, this impact is less than significant.*

**Significance**      *Less than Significant*

**Mitigation Proposed**      *None Warranted*

**Residual Significance**      *Less than Significant*

Park visitors would have access to Coon Creek and Whiskey Diggins Canal via the trails and crossings described in Impact 11-5. The flow of these watercourses contains effluent from the Placer County SMD 1 WWTP upstream of the Park. Pursuant to the WWTP discharge requirements (NPDES No. CA0079316), the RWQCB requires a level of treatment protective of all receiving and groundwater beneficial uses, including domestic, agricultural, and contact and non-contact recreation, equivalent to the California Department of Health Services

(DHS) reclamation criteria. In assessing the discharge standards necessary to protect the site-specific beneficial uses of Rock Creek and Dry Creek, the direct receiving waters of the WWTP effluent, and Coon Creek and Whiskey Diggins Canal, the indirect receiving waterbodies, the RWQCB compared Title 22 (Division 4, Chapter 3) standards to the level of treatment required to protect public health when in contact with treated wastewater or when directly using undiluted effluent for food crop irrigation, and requires this level of treatment for the WWTP effluent.

Title 22 requires that wastewater be adequately disinfected, oxidized, coagulated, clarified, and filtered for uses of wastewater including spray irrigation of food crops, parks, playgrounds, schoolyards, other areas of similar public access, and unrestricted contact recreation. Total coliform organism levels in the effluent must not exceed 2.2 Most Probable Number per 100 milliliters as a 7-Day Median. The 30-Day Average biochemical oxygen demand (BOD) and total suspended solids (TSS) effluent limits for secondary treatment have been revised in the permit to 10 mg/l, which is technically based on the capability of a tertiary system. Because the WWTP effluent must meet the standards of the WWTP NPDES permit protective of the receiving and groundwater beneficial uses including contact and non-contact recreation, this impact would be less than significant.

## 11.4 MITIGATION MEASURES

### Mitigation Measure 11-1: Prepare and Implement a Grading and Drainage Plan.

*Mitigation Measure 11-1 applies to Impacts 11-1 and 11-2.*

The County shall prepare and submit Grading and Drainage Plans (Plans) and specifications (per the requirements of Section II of the Land Development Manual that are in effect at the time of submittal) for review and approval of work associated with structural design, hydrology associated with the bridges, and grading/drainage associated with the facility development zone. The Plans shall show all conditions affecting those facilities as well as pertinent topographical features. All existing and proposed utilities and easements, on-site and adjacent to those facilities, which may be affected by planned construction, shall be shown on the plans. The County shall pay plan check and inspection fees as applicable.

All proposed grading, drainage improvements, vegetation, tree impacts, and tree removal associated with the Park access road, parking areas, and bridges shall be shown on the Plans and all work shall conform to provisions of the County Grading Ordinance (Section 15.48, formerly Chapter 29, Placer County Code) and the Placer County Flood Control District's Stormwater Management Manual. No grading, clearing, or tree disturbance shall occur until the Plans are approved and any required temporary construction fencing has been installed and inspected by a member of the Design Review Committee. All cut/fill slopes included in the Plans shall be at 2:1 (horizontal:vertical) maximum unless a soils report supports a steeper slope and Design Review Committee concurs with said recommendation.

In addition, a drainage report in conformance with the requirements of Section 5 of the Land Development Manual and the Placer County Storm Water Management Manual that are in effect at the time of submittal shall be prepared and submitted with the Plans. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: written text addressing existing conditions, the effects of the improvements, all appropriate calculations, a watershed map, increases in downstream flows, proposed on- and off-site improvements and drainage easements to accommodate flows from this project. The report shall identify water quality protection features and methods to be used both during construction and for long-term post-construction water quality protection. Best Management Practice (BMP) measures shall be provided to reduce erosion, water quality degradation, and prevent the discharge of pollutants to stormwater to the maximum extent practicable.

Although the facility development zone is generally in the southwestern portion of the Park, including the previously disturbed area surrounding the existing ranch house and the proposed parking areas, the exact location of individual facilities could vary within this zone. Therefore, it is not practical to prepare the drainage plan prior



to project approval. In addition, routine maintenance shall be performed on Park facilities to reduce erosion to the extent possible and to repair weather-related damage that could contribute to erosion.

Implementation of Mitigation Measure 11-1 would reduce the potentially significant impact related to short-term and long-term soil erosion and water quality impairment to a less-than-significant level.

**Mitigation Measure 11-2: Implement Groundwater Protection through a Transient Non-community Water System Permit.**

*Mitigation Measure 11-2 applies to Impacts 11-3.*

A Hidden Falls Regional Park Groundwater Systems Operation Procedure is in place for the existing well serving the restroom and facilities at the Didion Ranch parking area. Pump performance and system leakage inspections are part of the regular maintenance routine under this procedure. One Park staff member is trained and tasked with water sampling at monthly intervals. The County employs qualified plumbers and electricians to correct any system failures. The Placer County Parks Division, which is a division of the Department of Facility Services, operates the well and distribution system serving the public facilities at the existing Didion Ranch parking area under a Transient Non-community Water System Permit administered by the Placer County Environmental Health Division.

A separate permit would be obtained to include any additional wells that serve public facilities within Spears Ranch portion of the Park, and the conditions of the permit would be implemented to protect groundwater. The siting of any additional wells shall comply with the Placer County Water Well Construction Ordinance (Placer County Code Subchapter 8, effective July 19, 1990), and California Well Standards, Department of Water Resources Bulletin 74-90, June 1991.

A Groundwater Systems Operation Procedure or applicable equivalent would be prepared for any additional wells and adhered to as part of the permit conditions and ongoing operation. The objectives of the procedure shall be to ensure that:

- ▶ Water sources are not at risk of contamination from either tampering, pollutant discharge into the well head area, or latent groundwater contaminants.
- ▶ The responsible management agency has the technical capacity to operate the system to public health standards.

The procedure would include the following elements:

- ▶ The minimum horizontal distance between any additional wells and any sewer line or storm drain main or lateral shall be 50 feet. The minimum horizontal distance between any additional wells and septic tanks or leach fields shall be 100 feet.
- ▶ A Bacteriological and Chemical Monitoring and Reporting Program, approved by the Placer County Environmental Health Division.
- ▶ An operations and maintenance program including inspection of the distribution system and well head assembly.
- ▶ An emergency operations and repair program.

If well-monitoring samples show that groundwater quality is deteriorating, prompt actions shall be initiated to remedy problems, as specified by the Placer County Environmental Health Division and/or Central Valley RWQCB. These actions could include but would not be limited to the use of injection wells or other recharge

methods, closing the well and chlorinating the water, decommissioning the well and re-siting, or other water treatment alternatives such as construction of an on- or off-site water treatment plant. Some of these actions may be subject to additional CEQA analysis and other regulatory compliance. Implementation of Mitigation Measure 11-2 would reduce the potentially significant impact related to groundwater quality impairment to a less-than-significant level, because the Groundwater Systems Operation Procedure would enable the project applicant(s) to acquire the data and information necessary to manage the groundwater resource such that adverse impacts do not occur. This would enable detection of any negative changes to groundwater quality or quantity. If necessary, additional strategies to maintain the quality of groundwater at the project site and downgradient would be implemented following additional CEQA review.

#### **Mitigation Measure 11-3: Calculate Water Demands for Fire Suppression.**

*Mitigation Measure 11-3 applies to Impact 11-4.*

If groundwater is to be used for emergency fire suppression water, the County shall amend the April 7, 2009, Water Demand Calculation Report (Placer County 2009) to include fire suppression water requirements. If it is found that fire suppression requirements combined with water demands for other proposed uses is consistent with yields found in nearby private wells (1.3 to 7 gpm) then no further mitigation is required. If fire suppression requirement surpasses yields found in nearby private wells, one of the following shall be done:

- ▶ modify proposed uses at each well location to be consistent with available water that would not surpass similar yields of nearby wells;
- ▶ utilize Nevada Irrigation District raw irrigation water sources including but not limited to existing canals and ponds, new ponds, and/or irrigation fed underground storage tanks;
- ▶ fill storage tanks during off-peak periods when use is limited (i.e. winter and nighttime periods);
- ▶ import water needed to meet fire suppression requirements for emergency storage tanks via water trucks so that this water is not being pulled from the wells.

Implementation of Mitigation Measures 11-2 and 11-3 would reduce this impact to a less-than-significant level because proposed water demands would not be developed beyond the available groundwater capacity.

## 12.0 BIOLOGICAL RESOURCES

This chapter describes biological resources that could be affected by the proposed project and federal, state, and local regulations pertaining to biological resources. This chapter also addresses impacts of the proposed project on biological resources and recommends mitigation measures to address potentially significant impacts.

### 12.1 ENVIRONMENTAL SETTING

This section describes vegetation communities, common wildlife, sensitive biological resources, and special-status species that have the potential to occur in the project area. Databases and literature reviewed for preparation of this section included reviews of the California Natural Diversity Database (CNDDDB) (2007), the California Native Plant Society's (CNPS's) online inventory (CNPS 2006), and the Placer County Fish and Game Commission's deer habitat map (Placer County Fish and Game Commission 1992). Field surveys conducted to support this section include reconnaissance surveys (DFG 2005, 2006, 2007), vegetation mapping (Placer County 2007), rare plant surveys (Placer County 2007) and wetland mapping (Placer County 2008) within the Spears Ranch portion of the Park.

#### 12.1.1 VEGETATION COMMUNITIES

Most of the project area consists of gently rolling to steep hills covered by a patchwork of annual grassland and oak woodlands. Upland oak woodland can be divided into three types of woodland communities based on the dominant oak species: interior live oak woodland, blue oak woodland, and black oak woodland. Foothill pine (*Pinus sabiniana*) occurs throughout the property in all woodland types. Valley foothill riparian woodland and freshwater marsh have also been identified along the drainages. Vegetation communities present in the Spears Ranch portion of the Park and along Garden Bar Road were mapped onto aerial photographs (1 inch = 400 feet scale) during field surveys. The vegetation community polygons were later digitized onto a geographic information system (GIS) overlay and used to create a map showing the location and extent of each vegetation community present in the Spears Ranch portion of the Park and along Garden Bar Road (Exhibits 12-1a and 12-1b). Vegetation classifications are based on the California Department of Fish and Game's (DFG's) *List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* (DFG 2003). Vegetation communities present in the Spears Ranch portion of the Park and along Garden Bar Road are described in more detail below. Biological surveys for the Didion Ranch portion of the Park were conducted as part of the 2004 Initial Study/Mitigated Negative Declaration (IS/MND) for the Didion property (Placer County 2004).

#### ANNUAL GRASSLAND

Annual grassland is mapped on approximately 89 acres of the project area, occurring in a few large grazed clearings. Annual grassland is an herbaceous plant community characterized by dense cover of nonnative annual grasses with numerous species of nonnative annual forbs, as well as some native wildflowers. Typical grass species include bromes (*Bromus diandrus*, *B. hordeaceus*), wild oat (*Avena fatua*), foxtail barley (*Hordeum murinum* ssp. *murinum*), medusahead (*Taeniatherum caput-medusae*), and Italian ryegrass (*Lolium multiflorum*). Common nonnative forbs observed include cut-leaved geranium (*Geranium dissectum*), filaree (*Erodium botrys*), blessed milk thistle (*Silybum marianum*), lesser hawkbit (*Leontodon taraxacoides*), and rose clover (*Trifolium hirtum*). Native wildflowers such as rusty popcorn flower (*Plagiobothrys nothofulvus*), Ithuriel's spear (*Triteleia laxa*), harvest brodiaea (*Brodiaea elegans*), blow-wives (*Achyrrachaena mollis*), caterpillar phacelia (*Phacelia cicutaria*), and native clovers (*Trifolium* spp.) are also present.

## INTERIOR LIVE OAK WOODLAND

Interior live oak woodland is the dominant vegetation type in the project area, occupying approximately 683 acres. This oak woodland type is found on steep to moderate slopes of all aspects throughout the project area. Approximately one third of the Garden Bar Road corridor passes through interior live oak woodland. The vegetation is characterized by a dense to open canopy of interior live oak (*Quercus wislizeni*) with varying amounts of foothill pine. Blue oak (*Quercus douglasii*) may also be present. The understory shrub layer is mostly open and is characterized by species such as poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), and hairy honeysuckle (*Lonicera hispidula*). The herb layer is variable depending on openings in the tree canopy and is characterized by species such as hedgehog dogtail (*Cynosurus echinatus*), field hedge parsley (*Torilis arvensis*), and climbing bedstraw (*Galium porrigens*). Native grass species such as blue wild rye (*Elymus glaucus*), woodland brome (*Bromus laevipes*), and California melicgrass (*Melica californica*) are also present in the understory in portions of the project area where this woodland occurs.

## BLUE OAK WOODLAND

Blue oak woodland occurs on approximately 105 acres in the project area on moderate slopes near the tops of ridges. The southern two-thirds of the Garden Bar Road corridor is characterized by blue oak woodland and many of the large trees along the road in this portion of the project area are blue oaks. This oak woodland type is more open and savanna-like than other woodlands in the project area and is characterized by fairly evenly spaced and larger individual blue oaks. Interior live oak and foothill pine may also be present. A shrub layer is essentially absent and the understory is characterized by a dense cover of nonnative grasses and forbs, such as bromes, wild oat, foxtail barley, medusahead, cut-leaved geranium, and Italian thistle (*Carduus pycnocephalus*).

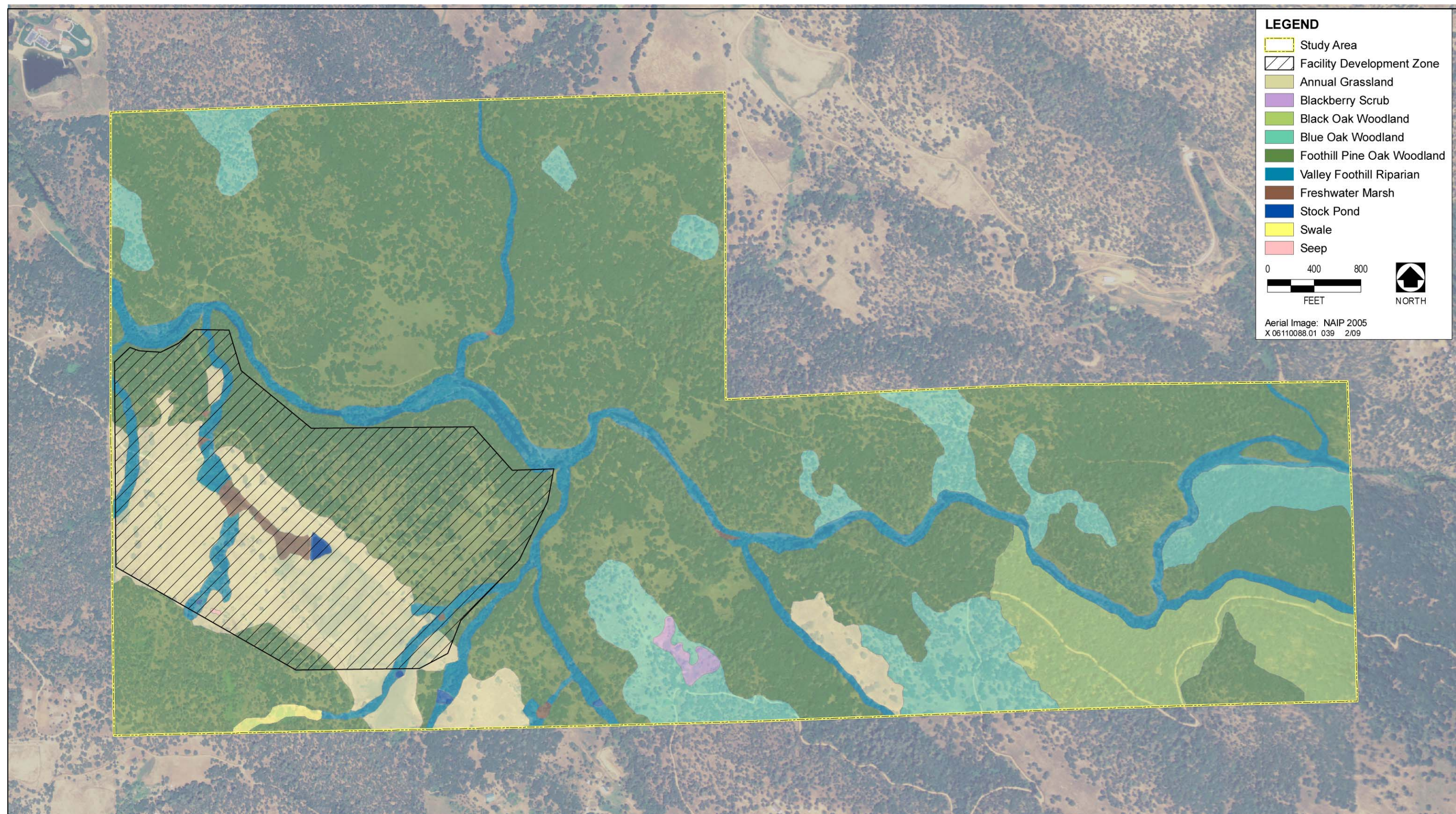
## BLACK OAK WOODLAND

Black oak woodland covers approximately 53 acres of the project area and is found on steep north-facing slopes in the southeast portion of the Park. This woodland type is characterized by a dense canopy that is at least 50% relative cover of black oak (*Quercus kelloggii*), with interior live oak and blue oak also present. Scattered ponderosa pine (*Pinus ponderosa*) is also present. The shrub layer is usually dense and is characterized by species such as toyon, hoary coffeeberry (*Rhamnus tomentella*), and poison oak. The herb layer is usually sparse and contains a mix of native and nonnative grasses and forbs. Native grasses and forbs found in the understory of the black oak woodland include blue wild rye, woodland brome, California melicgrass, yarrow (*Achillea millefolium*), and twining brodiaea (*Dichelostemma volubile*).

## VALLEY FOOTHILL RIPARIAN WOODLAND

Valley foothill riparian woodland covers 46 acres of the project area on the banks of Coon Creek, Deadman Creek, and intermittent drainages that have surface water for most of the year. These deciduous woodlands have a tree canopy dominated by Fremont cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), and white alder (*Alnus rhombifolia*). Shining willow (*Salix lucida* var. *lasiandra*), red willow (*S. laevigata*), and Oregon ash (*Fraxinus latifolia*) may also occur in the tree layer. Shrubs and lianas (i.e., woody climbing species) such as California grape (*Vitis californica*), arroyo willow (*Salix lasiolepis*), and Himalayan blackberry (*Rubus discolor*) form a dense understory layer, along with wetland herbaceous species such as torrent sedge (*Carex nudata*), mugwort (*Artemisia douglasiana*), and horsetail (*Equisetum arvense*) occurring along the water's edge.



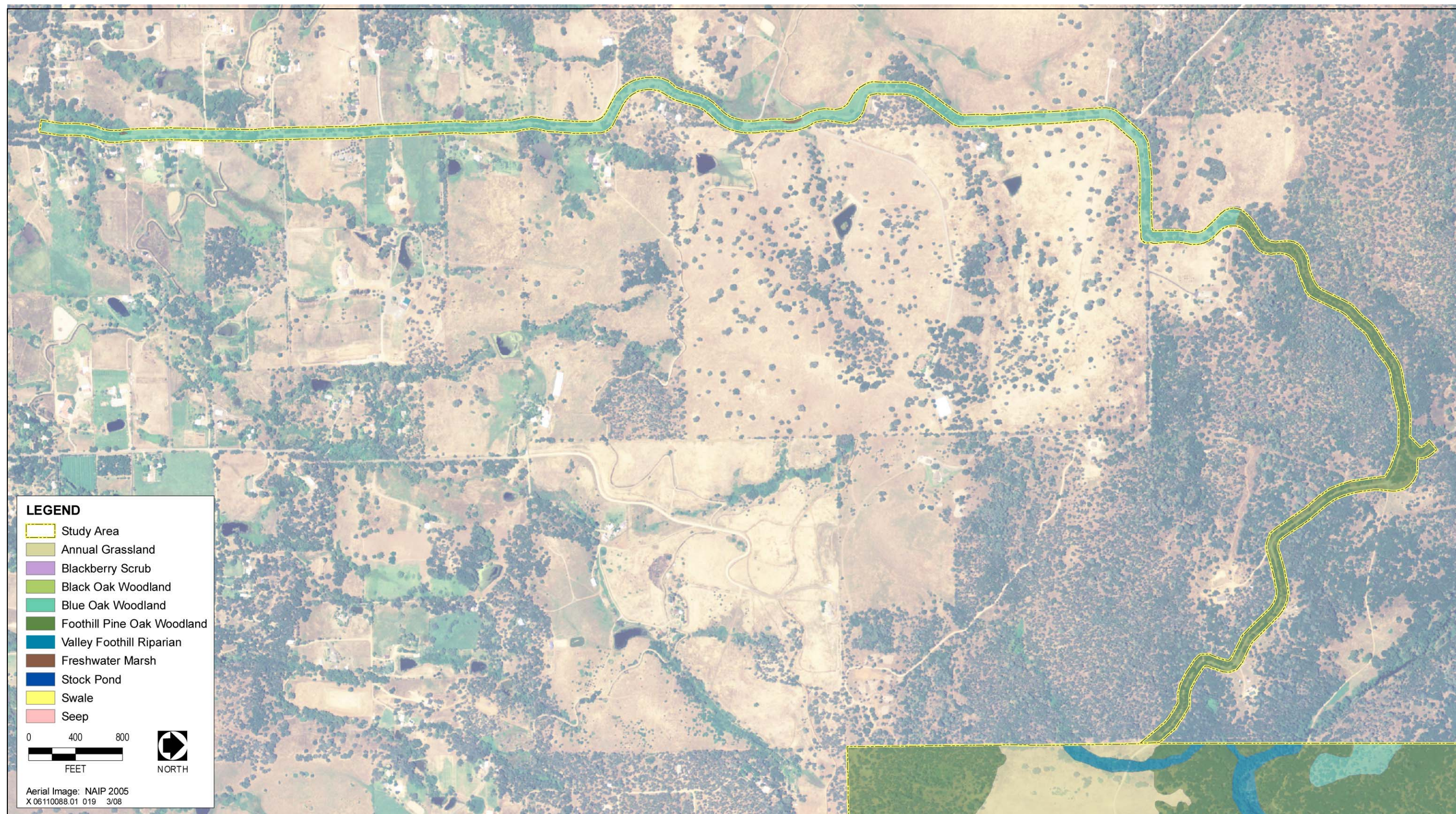


Source: Data provided by EDAW in 2007

## Vegetation Communities within the Spears Ranch Property

Exhibit 12-1a





Source: Data provided by EDAW in 2007 and 2008

## Vegetation Communities Along Garden Bar Road and Access Road

Exhibit 12-1b



## FRESHWATER MARSH

Freshwater marsh occurs on approximately 6 acres of the project area. This emergent herbaceous vegetation type is found in saturated soils on the fringes of the stock ponds and along intermittent drainages. The vegetation is characterized by obligate wetland herbaceous species such as spikerushes (*Eleocharis acicularis*, *E. macrostachya*), rushes (*Juncus effusus*, *J. bufonius*), cattails (*Typha angustifolia*), and smartweed (*Polygonum lapathifolium*). Often this vegetation is surrounded by woody riparian shrubs such as arroyo willow, Himalayan blackberry, and western dogwood (*Cornus sericea*).

### 12.1.2 WILDLIFE

The project area supports suitable habitat for a wide variety of resident and migratory wildlife species. Common bird species in upland oak woodland habitats include turkey vulture (*Cathartes aura*), acorn woodpecker (*Melanerpes formicivorus*), oak titmouse (*Baeolophus inornatus*), wild turkey (*Meleagris gallopavo*), Anna's hummingbird (*Calypte anna*), and migratory birds such as ash-throated flycatcher (*Myiarchus cinerascens*) and violet-green swallow (*Tachycineta thalassina*). Mammals and reptiles that are commonly found in these woodlands include mule deer (*Odocoileus hemionus*), western rattlesnake (*Crotalus viridis*), western harvest mouse (*Reithrodontomys megalotis*), southern alligator lizard (*Elgaria multicarinata*), western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis melanoleucus*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), and bobcat (*Lynx rufus*). These woodlands also support nonnative wild pigs (*Sus scrofa*), which are considered a nuisance wildlife species and are discussed further in Chapter 14.0, "Hazards and Hazardous Materials."

Open annual grassland and oak savanna habitats support species such as red-tailed hawk (*Buteo jamaicensis*), black-tailed jackrabbit (*Lepus californicus*), western meadowlark (*Sturnella neglecta*), California ground squirrel (*Spermophilus beecheyii*), and loggerhead shrike (*Lanius ludovicianus*).

Valley foothill riparian woodlands provide resources, migration and dispersal corridors, and cover for diverse species. Bird species associated with this habitat include brown-headed cowbird (*Molothrus ater*), Hutton's vireo (*Vireo huttoni*), red-shouldered hawk (*Buteo lineatus*), Bewick's wren (*Thryomanes bewickii*), orange-crowned warbler (*Vermivora celata*), yellow-breasted chat (*Icteria virens*), spotted towhee (*Pipilo maculatus*), and lesser goldfinch (*Carduelis psaltria*). Several amphibians and reptiles—western toad (*Bufo boreas halophilus*), northwestern pond turtle (*Emys marmorata*), green racer (*Coluber constrictor*), and Gilbert's skink (*Eumeces gilbertii*)—use riparian woodlands in the project area. Mammals that use this habitat include mule deer, opossum (*Didelphus virginiana*), and cougar (*Felis concolor*). Bats, such as Yuma myotis (*Myotis yumanensis*), may forage for insects over riparian areas and roost in riparian trees.

Freshwater marsh in the project area provides habitat for Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), common muskrat (*Ondatra zibethicus*), Virginia rail (*Rallus limicola*), sora (*Porzana carolina*), American wigeon (*Anas americana*), American beaver (*Castor canadensis*), California newt (*Taricha torosa*), Pacific treefrog (*Hyla regilla*), northwestern pond turtle, common garter snake (*Thamnophis sirtalis*), and bullfrog (*Rana catesbeiana*).

### 12.1.3 FISHERIES AND AQUATIC RESOURCES

This section addresses common and sensitive fisheries and aquatic resources found in Coon Creek and Deadman Creek in Placer County. The analysis focuses on Coon Creek, as only the mouth of Deadman Creek at Coon Creek is within the project area. Hydrology and water quality are addressed in Chapter 11.0, "Hydrology and Water Quality."

## COON CREEK AND DEADMAN CREEK

Coon Creek, its tributaries (e.g., Deadman Creek), and other foothill streams that flow into the Sacramento River provide spawning, rearing, and/or migratory habitat for a diverse assemblage of native and nonnative species (Table 12-1). Coon Creek is connected to the Sacramento River through the East Side Canal (ESC)/Natomas Cross Canal (NCC), a channelized water conveyance canal in Sutter County that drains the area between the Bear River and American River drainages. Native species potentially present in Coon and Deadman Creeks can be separated into anadromous species (i.e., species that spawn in freshwater after migrating as adults from marine habitat) and resident species. Native anadromous species are Central Valley fall-/late fall-run chinook salmon evolutionary significant unit (ESU) (*Oncorhynchus tshawytscha*), Central Valley steelhead distinct population segment (DPS; formerly ESU) (*O. mykiss*), and Pacific lamprey (*Lampetra tridentata*). Native resident species are Sacramento pikeminnow (*Ptychocheilus grandis*), Sacramento splittail (*Pogonichthys macrolepidotus*), Sacramento sucker (*Catostomus occidentalis*), hardhead (*Mylopharodon conocephalus*), California roach (*Lavinia symmetricus*), and rainbow trout (*O. mykiss*). Nonnative resident species are largemouth bass (*Micropterus salmoides*), smallmouth bass (*M. dolomieu*), white and black crappie (*Pomoxis annularis*, *P. nigromaculatus*), channel catfish (*Ictalurus punctatus*), white catfish (*Ameiurus catus*), brown bullhead (*I. nebulosus*), bluegill (*Lepomis macrochirus*), green sunfish (*L. cyanellus*), and golden shiner (*Notemigonus crysaeleucas*).

**Table 12-1**  
**Fish Present in Coon Creek and the ESC/NCC**

Common Name	Scientific Name	Native (N) or Introduced (I)
Central Valley fall-/late fall-run chinook salmon ESU	<i>Oncorhynchus tshawytscha</i>	N
Central Valley steelhead/rainbow trout DPS	<i>Oncorhynchus mykiss</i>	N
Pacific lamprey	<i>Lampetra tridentata</i>	N
Sacramento pikeminnow	<i>Ptychocheilus grandis</i>	N
Sacramento splittail	<i>Pogonichthys macrolepidotus</i>	N
Sacramento sucker	<i>Catostomus occidentalis</i>	N
Hardhead	<i>Mylopharodon conocephalus</i>	N
California roach	<i>Lavinia symmetricus</i>	N
Rainbow trout	<i>Oncorhynchus mykiss</i>	N
Largemouth bass	<i>Micropterus salmoides</i>	I
Smallmouth bass	<i>Micropterus dolomieu</i>	I
White crappie	<i>Pomoxis annularis</i>	I
Black crappie	<i>Pomoxis nigromaculatus</i>	I
Channel catfish	<i>Ictalurus punctatus</i>	I
White catfish	<i>Ameiurus catus</i>	I
Brown bullhead	<i>Ictalurus nebulosus</i>	I
Bluegill	<i>Lepomis macrochirus</i>	I
Green sunfish	<i>Lepomis cyanellus</i>	I
Golden shiner	<i>Notemigonus crysaeleucas</i>	I
Source: Navicky, pers. comm., 2007; Moyle 2002; compiled by EDAW 2008		



The use of different areas of Coon and Deadman Creeks by different fish species is influenced by variations in habitat conditions, each species' habitat requirements, life-history timing, and daily/seasonal movements and behavior. Habitat conditions are influenced by urbanization in the upper watershed and agricultural activities along the lower reaches. Flows within Coon Creek are extremely variable because of natural hydrologic variability, upstream wastewater treatment plant effluent discharge, urban stormwater inputs, and diversions along different reaches of the creek (see Chapter 11.0, "Hydrology and Water Quality"). The variation in flows through Coon Creek may substantially influence the presence and/or timing of anadromous fishes in the system because of associated variations in water quality and barriers and obstacles to passage.

Shaded riverine aquatic (SRA) vegetation and instream tree and shrub debris provide important components of fish habitat in Coon Creek. SRA habitat is defined as the nearshore aquatic habitat occurring at the interface between a river and adjacent woody riparian habitat. The principal attributes of this cover type are an adjacent bank composed of natural, eroding substrates supporting riparian vegetation that either overhang or protrude into the water; and water that contains variable amounts of woody debris (leaves, logs, branches, and roots) and has variable depths, velocities, and currents. Riparian habitat provides structure (through SRA habitat) and food for fish species. Shade decreases water temperatures and low overhanging branches can provide sources of food by attracting terrestrial insects. As riparian areas mature, the vegetation sloughs off into the rivers, creating structurally complex habitat consisting of large woody debris that furnishes refugia from predators, creates higher water velocities, and provides habitat for aquatic invertebrates. For these reasons, many fish species are attracted to SRA habitat.

Upper Coon Creek provides coldwater spawning and rearing habitat for chinook salmon and steelhead trout. Electrofishing surveys conducted by DFG in 2004 and 2005 as part of the Coon Creek System Resource Assessment Project confirmed the presence of steelhead/rainbow trout in the project area and juvenile chinook salmon downstream of the project area (Table 12-2). The channelized lower Coon Creek and ESC/NCC function primarily as a migration corridor and do not provide high-quality rearing and spawning habitat for splittail, salmon, or steelhead.

**Table 12-2**  
**Fish Sampling Results From Coon Creek (Spring 2005)**

Survey Date	Site	Fish Species					
		CS (Juvenile)	SH/RBT	SKR	PM	GSF	SMB
4/15/05	Spears Ranch, below falls	0	11	8	13	2	39
4/25/05	Foggy Ranch, ~1 mile downstream of Spears Ranch	25	1	12	10	18	9
4/26/05	Spears Ranch, above falls	0	0	61	0	7	0
Notes: CS = chinook salmon; GSF = green sunfish; PM = Sacramento pikeminnow; SH/RBT = steelhead/rainbow trout; SKR = Sacramento sucker; SMB = smallmouth bass Source: Navicky, pers. comm., 2007							

## 12.1.4 SENSITIVE HABITATS

For the purposes of this EIR, sensitive habitats are defined as habitats with particularly high ecological values or functions, of limited distribution, or of concern otherwise to federal, state, and/or local resource agencies. This includes those that are of special concern to DFG (e.g., those identified as having high priority for inventory by the CNDDDB, or those that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, Section 404 of the Clean Water Act (CWA), or the Sustainable Fisheries Act, as amended). Sensitive habitats are of special concern because they have high potential to support special-status plant and

animal species. Sensitive habitats can also provide other important ecological functions, such as enhancing flood and erosion control and maintaining water quality.

Drainages, wetlands, and other areas identified in the wetland delineation as jurisdictional waters of the United States are protected under the CWA as regulated by the U.S. Army Corps of Engineers (USACE). Streams and adjacent riparian forest are also protected under the California Fish and Game Code. In addition, the Sacramento River, ESC/NCC, and Coon Creek have also been designated as essential fish habitat (EFH) by the Pacific Fishery Management Council to protect and enhance habitat for coastal marine fish and macroinvertebrate species that support commercial fisheries. EFH is defined as waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity. Under the *Pacific Coast Salmon Fisheries Management Plan* (Pacific Fishery Management Council 2003), the Sacramento River has been designated as EFH for spring-, fall-, late fall- and winter-run chinook salmon, and the ESC/NCC and Coon Creek have been designated as EFH for fall-run chinook salmon.

Sensitive habitats in the project area include the riparian habitat along Coon Creek, Deadman Creek, and intermittent drainages (described above as valley foothill riparian and freshwater marsh habitats).

## **JURISDICTIONAL WETLANDS AND OTHER WATERS OF THE UNITED STATES**

A preliminary delineation of waters of the United States, including wetlands, was prepared for the Spears Ranch portion of the Park and Garden Bar Road. Fieldwork for the delineation report was conducted by EDAW wetland ecologists in April, May, June, and December 2007. The delineation identified the location of 31.5 acres of potentially jurisdictional waters of the United States on the Spears Ranch property and along Garden Bar Road, including 24.8 acres of perennial, intermittent, and ephemeral drainages, 1.2 acres of stock ponds, and 5.6 acres of freshwater marsh and seeps. All of these features qualify as sensitive habitats.

### **12.1.5 SPECIAL-STATUS SPECIES**

Special-status species are plants and animals that are legally protected or otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. These species are federally listed and/or state listed as rare, threatened, or endangered; candidates or proposed for listing; identified by DFG or the U.S. Fish and Wildlife Service (USFWS) as species of concern; and plants considered by CNPS to be rare, threatened, or endangered.

The CNDDDB (2007) was reviewed for sensitive biological resources, including sensitive habitats and special-status species that are known to occur in the project vicinity. The occurrences within the Gold Hill, Auburn, Lincoln, Pilot Hill, Rocklin, Roseville, Lake Combie, Wolf, and Camp Far West U.S. Geological Survey 7.5-minute quadrangles were reviewed. The CNDDDB includes site-specific information on all reported occurrences of sensitive biological resources in California and is a “positive sighting” database. It provides only a record of occurrences as reported to the CNDDDB; therefore, a lack of data for species in specific areas does not necessarily indicate absence of the species from that area. A database search of CNPS’s *Inventory of Rare and Endangered Plants* (CNPS 2006) was conducted as well.

## **SPECIAL-STATUS PLANTS**

This section summarizes the results of a special-status plant survey report that was conducted for the Spears Ranch property and Garden Bar Road (Appendix G).

Special-status plants are defined as plants that are legally protected or otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. Special-status plants are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- ▶ officially listed by the federal government or the state of California as endangered, threatened, or rare;

- ▶ a candidate for state or federal listing as endangered, threatened, or rare;
- ▶ taxa that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines;
- ▶ taxa designated as a special-status, sensitive, or declining species by other federal or state agencies or nongovernmental organizations; and
- ▶ taxa considered by CNPS to be “rare, threatened or endangered in California” (Lists 1B and 2).

The CNPS Inventory includes five lists for categorizing plant species of concern. Plants on CNPS Lists 1A, 1B, and 2 meet the definitions in Section 1901 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act [CESA]) of the California Fish and Game Code and may qualify for state listing. Therefore, they are considered rare plants pursuant to Section 15380 of CEQA. DFG recommends, and local government agencies may require, that they be fully considered during preparation of environmental documents pursuant to CEQA. Some of the plants constituting CNPS Lists 3 and 4 meet the definitions included in Section 1901 et seq. or Sections 2062 and 2067 of the California Fish and Game Code and are eligible for state listing. DFG recommends, and local governments may require, that CNPS List 3 and List 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA (DFG 2000). The CNPS lists are categorized as follows:

- ▶ List 1A—plants presumed extinct in California;
- ▶ List 1B—plants rare, threatened, or endangered in California and elsewhere;
- ▶ List 2—plants rare, threatened, or endangered in California but more common elsewhere;
- ▶ List 3—plants about which we need more information (a review list); and
- ▶ List 4—plants of limited distribution (a watch list).

Searches of the CNPS and CNDDDB databases identified 19 special-status plant species as occurring in the project vicinity, and one special-status plant species not reported in the database queries was documented in the project area. Seventeen of these species, which are listed below, were identified as having no potential to occur in the project area and thus are excluded from further analysis:

- ▶ Stebbin’s morning glory (*Calystegia stebbinsii*), Pine Hill ceanothus (*Ceanothus roderickii*), El Dorado bedstraw (*Galium californicum* ssp. *sierrae*), Red Hills soap root (*Chlorogalum grandiflorum*), and El Dorado County mule ears (*Wyethia reticulata*) are restricted to gabbro soils in El Dorado and Nevada Counties.
- ▶ Jepson’s onion (*Allium jepsonii*) and big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) are found on serpentine soils, which do not occur in the project area.
- ▶ Dwarf downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Ahart’s dwarf rush (*Juncus leiospermus* var. *ahartii*), Red Bluff dwarf rush (*J. leiospermus* var. *leiospermus*), legenere (*Legenere limosa*), and pincushion navarretia (*Navarretia myersii* spp. *myersii*) occur in vernal pool habitats, which do not occur in the project area.
- ▶ Hispid bird’s-beak (*Cordylanthus mollis* ssp. *hispidus*), where it is known to occur in Placer County, is found in damp alkaline meadows at about 150 feet elevation. These conditions are not present within the project area.
- ▶ Butte County fritillary (*Fritillaria eastwoodiae*) occurs primarily in the northern foothills of the Sierra Nevada and Cascade Range. The southernmost known occurrences are found north of the project area in Yuba County, where they occur at higher elevations in Ponderosa Pine forest.

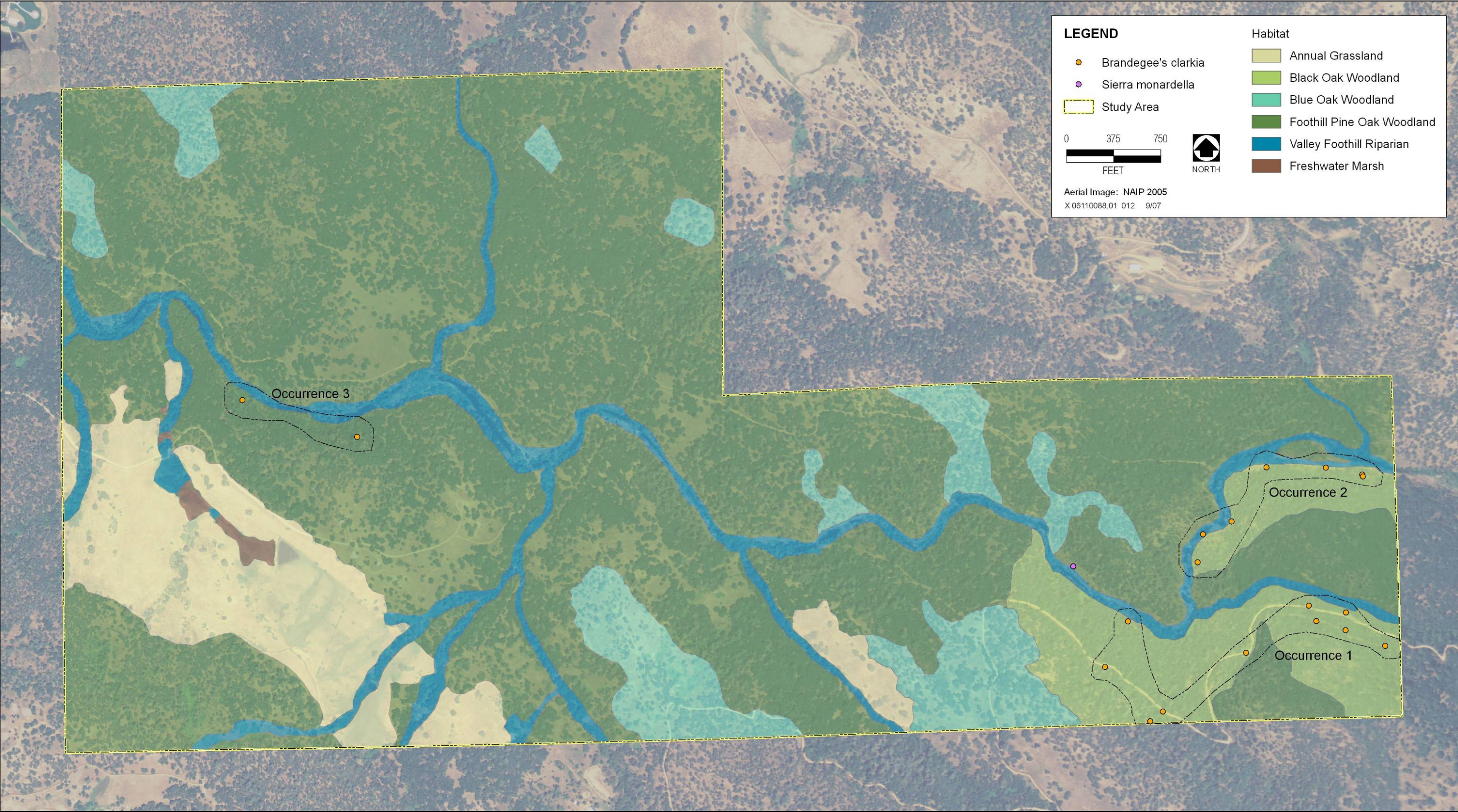
Three special-status plant species have the potential to occur in the vicinity of the project: Brandegee’s clarkia (*Clarkia biloba* ssp. *brandegeae*), oval-leaved viburnum (*Viburnum ellipticum*), and Sierra monardella (*Monardella*

*candicans*). Sierra monardella was not identified as a potential target special-status plant species from the database searches because no records currently exist in the CNDDB for this species. However, one population of Sierra monardella was encountered during 2007 rare plant surveys of the Spears Ranch property (EDAW 2007). Table 12-3 summarizes the regulatory status, habitat, and blooming period of Brandegeee's clarkia, oval-leaved viburnum, and Sierra monardella. Habitat and elevation range information for these species was obtained from the CNPS Electronic Inventory (2006) and *The Jepson Manual: Higher Plants of California* (Hickman 1993).

Table 12-3 Special-Status Plants Known or Potentially Occurring in the Project Area					
Species	Status <sup>1</sup>			Habitat and Blooming Period	Potential for Occurrence
	USFWS	DFG	CNPS		
Plants					
Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i>	—	—	1B	Chaparral, cismontane woodland; often in roadcuts; 700–3,000 feet elevation; blooms May–July	Known to occur; identified in the project area during 2007 surveys.
Sierra monardella <i>Monardella candicans</i>	—	—	4	Sandy or gravelly soils in chaparral, cismontane woodland, or lower montane coniferous forest; blooms April–July	Known to occur; identified in the project area during 2007 surveys.
Oval-leaved viburnum <i>Viburnum ellipticum</i>	—	—	2	Chaparral, cismontane woodland, or lower montane coniferous forest; 600–4,000 feet elevation; blooms May–June	Unlikely to occur; suitable habitat in the project area was surveyed in 2007 and the species was not found. Most of the project area is below the elevation range of this species where it occurs in the central foothills.
Notes: CNPS = California Native Plant Society; DFG = California Department of Fish and Game; USFWS = U.S. Fish and Wildlife Service					
<sup>1</sup> Legal Status Definitions		CNPS Listing Categories:			
USFWS:		1B Plants rare, threatened, or endangered in California and elsewhere			
T Federal Threatened		2 Plants rare, threatened, or endangered in California but more common elsewhere			
E Federal Endangered		3 Plants for which more information is needed (a review list)			
DFG:		4 Plants of limited distribution (a watch list)			
R Rare					
T Threatened					
E Endangered					
Sources: CNDDB 2007, CNPS 2006, Hickman 1993					

As part of special-status plant surveys conducted for the project (EDAW 2007), two special-status plant species—Brandegee's clarkia and Sierra monardella—were documented in the Spears Ranch portion of the Park. All areas of suitable habitat for oval-leaved viburnum were surveyed, but the species was not found. Locations of Brandegeee's clarkia and Sierra monardella were mapped and are displayed in Exhibit 12-2. Descriptions of these two species, including their habitat and distribution in the project area, are provided below.





Source: Data provided by EDAW in 2007

Location of Brandegge’s Clarkia and Sierra Monardella in the Spears Ranch Property

Exhibit 12-2



## Brandegee's Clarkia

Brandegee's clarkia, a member of the evening primrose family, is a CNPS List 1B plant. Brandegee's clarkia is found in the central Sierra Nevada foothills between 800 and 2,900 feet above sea level in chaparral and woodland habitats, often along roadcuts. It is an annual herb with rose-pink flowers that blooms from May to July.

Brandegee's clarkia was encountered during surveys conducted in 2007 throughout the Park on steep north-facing slopes in openings in black oak woodlands. Populations of Brandegee's clarkia are abundantly distributed throughout the southeastern corner of the Spears Ranch portion of the Park and continue into the Didion Ranch portion of the Park, where they are found flourishing along the new hiking trails created within that portion of the Park. This species is commonly associated species include hedgehog dogtail, field hedge parsley, poison oak, blue wild rye, and white globe lily (*Calochortus albus*). Many of the populations are found on the roadcuts along the Whiskey Diggins Canal and associated maintenance road where individual plants number in the thousands. Scattered populations are also found along Garden Bar Road from where the access road begins to about 0.5 mile north along the road.

## Sierra Monardella

Sierra monardella, a member of the mint family, is a CNPS List 4 plant. It is a small, annual plant with 0.5-inch heads of white flowers that bloom from April to July. Sierra monardella grows on sandy or gravelly soils in oak woodland, chaparral, and ponderosa pine forest throughout the Sierra Nevada foothills.

A single population of Sierra monardella was located in the Spears Ranch property during the 2007 surveys (Exhibit 12-2). Sierra monardella occurs in the openings of the interior live oak woodland on the north side of Coon Creek. The surrounding plant community is moderately dense annual grassland on a low gradient southwest-facing terrace above the creek. Associated species include bromes, lupines (*Lupinus* sp.), smooth cat's ears (*Hypochaeris glabra*), four spot (*Clarkia purpurea*), Ithuriel's spear, needleleaf navarretia (*Navarretia intertexta*), and brodiaea (*Brodiaea elegans*).

## SPECIAL-STATUS FISH AND WILDLIFE

Four special-status fish species have the potential to occur in Coon and Deadman Creeks (Table 12-4). Of these species, the Central Valley steelhead DPS is the only species federally listed as threatened. USFWS delisted Sacramento splittail from its threatened status on September 22, 2003. The National Marine Fisheries Service (NMFS) determined that listing is not warranted for Central Valley fall-/late fall-run chinook salmon. However, this species is still designated a species of concern by NMFS and a species of special concern by DFG because of concerns about specific risk factors. The remaining species (hardhead) is considered a species of special concern by DFG.

Twenty-two special-status wildlife species have the potential to occur in the project vicinity, based on records in the CNDDDB and the regional presence of potentially suitable habitat. A table consisting of these species and an assessment of their potential for occurrence in the project area is included in Appendix H. Fifteen species that could occur or are known to occur in the project area are presented in Table 12-4, which describes the level of protection, habitat, and potential to occur within the project area. Each of these species is discussed briefly after Table 12-4.

## FISH

### Central Valley Fall-/Late Fall-Run Chinook Salmon ESU

Adult Central Valley fall-/late fall-run chinook salmon ESU enter the Sacramento and San Joaquin River systems from July through April and spawn from October through February. This species is a federal species of concern and state species of special concern (Table 12-4). During spawning, the female digs a redd (gravel nest) where she deposits her eggs, which are then fertilized by the male and undergo an incubation period. Newly emerged

chinook salmon fry remain in shallow, lower-velocity edgewater, particularly where debris congregates and makes the fish less visible to predators (DFG 1998). Juveniles typically rear in freshwater (in their natal streams, the Sacramento River system, and the Sacramento–San Joaquin Delta [Delta]) for up to 5 months before entering the ocean. Juveniles migrate downstream between January and June.

Cover structure, space, and food are necessary components of chinook salmon rearing habitat. Suitable habitat includes areas with instream and overhead cover—undercut banks, downed trees, and large overhanging tree branches. The organic materials that form fish cover also help provide food sources in the form of both aquatic and terrestrial insects. Juvenile chinook salmon that grow faster are likely to migrate downstream sooner, which helps to reduce the risks of predation and competition in freshwater systems. DFG fish sampling in Coon Creek downstream of Garden Bar Road on Foggy Ranch confirmed the presence of juvenile chinook salmon in 2005 (Navicky, pers. comm., 2007).

### **Central Valley Steelhead DPS**

Historically, Central valley steelhead DPS spawned and reared in most of the accessible upstream reaches of the Sacramento and American Rivers and many of their tributaries. The Central Valley steelhead DPS generally migrated farther than chinook salmon into tributaries and headwater streams where cool, well-oxygenated water is available year round. This species is federally listed as threatened (Table 12-4). Central Valley steelhead spawn mainly from January through March, but spawning has been reported from late December through April (McEwan and Jackson 1996). During spawning, the female digs a redd in which she deposits her eggs, which are then fertilized by the male and undergo an incubation period. Newly emerged steelhead fry move to shallow, protected areas along streambanks but move to faster, deeper areas of the river as they grow.

Juvenile steelhead feed on a variety of aquatic and terrestrial insects and other small invertebrates. They rear throughout the year and may spend 1–3 years in freshwater before emigrating to the ocean. Smoltification, the physiological adaptation that juvenile salmonids undergo to tolerate saline waters, occurs in juveniles as they begin their downstream migration. DFG fish sampling efforts that took place on April 15, 2005, on the Spears Ranch portion of Coon Creek captured numerous rainbow trout individuals (Navicky, pers. comm., 2007).

### **Sacramento Splittail**

Sacramento splittail was recently delisted from federally threatened status but remains a state species of special concern (Table 12-4). A large freshwater cyprinid that is tolerant of moderate salinities, this species is a bottom forager that feeds on small invertebrates and detritus. Sacramento splittail migrate from brackish water to freshwater to spawn over flooded terrestrial (preferred) or aquatic vegetation (Moyle 2002, Wang 1986). Larval splittail are commonly found in shallow, vegetated areas where spawning occurs and eventually move into deeper, open-water habitats as they grow and become juvenile. Splittail were historically present in Coon Creek, but they are unable to access the creek within the Spears Ranch portion of the Park because of downstream natural barriers (i.e., waterfalls) in the channel.

### **Hardhead**

Hardhead is a federal species of concern and a state species of special concern (Table 12-4). This species is widely distributed in streams at low to middle elevations throughout the main Sacramento–San Joaquin drainage, including the Sacramento River system, and prefers undisturbed portions of larger streams. Hardhead are able to withstand summer water temperatures above 20°C; however, they will select areas with lower water temperatures when they are available. Pools with sand-gravel substrates and slow water velocities are the preferred habitat; adult fish inhabit the lower half of the water column, while the juvenile fish remain in the shallow water closer to the stream edges. Hardhead typically feed on small invertebrates and aquatic plants at the bottom of quiet water (Moyle 2002).

**Table 12-4  
Special-Status Fish and Wildlife Species with Potential to Occur  
in the Project Area**

Species	Status <sup>1</sup>		Habitat	Potential for Occurrence
	USFWS/NMFS	DFG		
Fish				
Central Valley fall-/late fall–run chinook salmon ESU <i>Oncorhynchus tshawytscha</i>	SC	SSC	EFH designated; requires cold, freshwater streams with suitable gravel for spawning; rears in seasonally inundated floodplains, rivers, and tributaries, and in the Delta	Occurs downstream in the lower Sacramento River, the ESC/NCC, and Coon Creek. Unlikely to pass waterfalls and access segment of Coon Creek within the Park boundaries under most flow conditions.
Central Valley steelhead DPS <i>Oncorhynchus mykiss</i>	T	–	Critical Habitat designated; requires cold, freshwater streams with suitable gravel for spawning; rears in seasonally inundated floodplains, rivers, and tributaries, and in the Delta	Occurs downstream in the lower Sacramento River, the ESC/NCC, and Coon Creek on the Spears Ranch property.
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	DT	SSC	Spawning and juvenile rearing from winter to early summer in shallow weedy areas inundated during seasonal flooding in the lower reaches and flood bypasses of the Sacramento River	Occurs downstream in the lower Sacramento River; may also occur in the ESC/NCC and Coon Creek. Unlikely to pass waterfalls and access the segment of Coon Creek on the Spears Ranch property under most flow conditions.
Hardhead <i>Mylopharodon conocephalus</i>	–	SSC	Spawning occurs in pools and side pools of rivers and creeks; juveniles rear in pools of rivers and creeks, and in shallow to deeper water of lakes and reservoirs	Occurs downstream in the lower Sacramento River; may also occur in the ESC/NCC and Coon Creek on the Spears Ranch property.
Amphibians				
California red-legged frog <i>Rana aurora draytonii</i>	T	SSC	Riparian and slow-water rivers and lakes with emergent aquatic vegetation	Could occur; several cattle stock ponds and freshwater marshes in the southwest section of the Spears Ranch property provide suitable habitat.
Foothill yellow-legged frog <i>Rana boylei</i>	–	SSC	Perennial rocky streams in a wide range of deciduous and coniferous habitats; rarely found far from permanent water	Could occur; Coon Creek and other shallow, perennial drainages with cobble provide suitable habitat.
Reptiles				
Northwestern pond turtle <i>Emys marmorata</i>	–	SSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation	Known to occur; surveys conducted in 2005 confirmed presence along Coon Creek.



**Table 12-4  
Special-Status Fish and Wildlife Species with Potential to Occur  
in the Project Area**

Species	Status <sup>1</sup>		Habitat	Potential for Occurrence
	USFWS/NMFS	DFG		
Birds				
Cooper’s hawk <i>Accipiter cooperii</i>	–	SSC	Typically inhabits oak savannah, woodlands, and open grassland habitats	Likely to occur; suitable foraging and nesting habitat present on the Spears Ranch property in oak woodlands.
Sharp-shinned hawk <i>Accipiter striatus</i>	–	SSC	Nests and forages in woodlands but may occur in the more open savannah woodland type habitats such as blue oak woodland and blue oak–foothill pine	Could occur; suitable foraging and nesting habitat present on the Spears Ranch property in oak woodlands.
Golden eagle <i>Aquila chrysaetos</i>	–	SSC; FP	Forages over open shrub and grasslands; nests on cliffs or large rock outcrops	Known to occur; suitable foraging and nesting habitat present on the Spears Ranch property in annual grasslands and oak woodlands.
Yellow-breasted chat <i>Icteria virens</i>	–	SSC	Forages and nests in riparian thickets of willow, blackberry, wild grape, and other brushy tangles near watercourses	Known to occur; foraging and nesting habitat present on the Spears Ranch property in patches of blackberry thickets along Coon Creek and surrounding freshwater marshes and stock ponds.
Yellow warbler <i>Dendroica petechia</i>	–	SSC	Nests in mesic, deciduous thickets, especially riparian; preferred habitat includes moist areas with dense insect prey populations	Could occur; no suitable breeding habitat present in the project area; possible occurrence as a migrant.
White-tailed kite <i>Elanus leucurus</i>	–	FP	Forages in grasslands and agricultural fields; nests in isolated trees or small woodland patches	Could occur; marginally suitable foraging habitat present in the project area in grasslands with scattered oak trees.
California black rail <i>Laterallus jamaicensis coturniculus</i>	–	T	Forages and nests in freshwater marshes with shallow water and little to no fluctuation that are composed of dense stands of bulrushes and/or cattails	Known to occur; suitable foraging and nesting habitat present in marshes along Coon Creek.
Loggerhead shrike <i>Lanius ludovicianus</i>	–	SSC	Forages in grasslands and nests in shrubs and small trees	Could occur; suitable foraging habitat present in the project area in grasslands with scattered oak trees.

**Table 12-4  
Special-Status Fish and Wildlife Species with Potential to Occur  
in the Project Area**

Species	Status <sup>1</sup>		Habitat	Potential for Occurrence
	USFWS/NMFS	DFG		
Mammals				
Ringtail <i>Bassariscus astutus</i>	—	FP	Finds optimum habitat in low- to mid-elevation riparian deciduous areas; seldom found more than 0.6-mile from water; requires rock crevices, hollow trees, or snags for breeding or resting	Known to occur; suitable foraging habitat and denning habitat present in large (> 6 inches dbh) trees along Coon Creek.
Townsend’s big-eared bat <i>Corynorhinus townsendii</i>	—	SSC	Lives in a wide variety of habitats but most common in mesic sites; typically roosts in caves, mines, and similar structures	Could occur; suitable habitat present in the project area in rock crevices within foothill pine-oak woodlands.
Notes: dbh = diameter at breast height; DFG = California Department of Fish and Game; EFH = essential fish habitat; ESC = East Side Canal; NCC = Natomas Cross Canal; NMFS = National Marine Fisheries Service; USFWS = U.S. Fish and Wildlife Service				
<sup>1</sup> Legal Status Definitions				
USFWS/NMFS:			DFG:	
T	Federal Threatened		R	Rare
E	Federal Endangered		T	Threatened
DT	Recently delisted from threatened status		E	Endangered
SC	Species of Concern		SSC	Species of Special Concern
			FP	Fully Protected
Sources: CNDDDB 2007; USFWS 2007; Placer County 2006; DFG 2004, 2005, 2006, 2007				

## AMPHIBIANS AND REPTILES

### California Red-Legged Frog

California red-legged frog is federally listed as threatened and is a state species of special concern (Table 12-4). This species is commonly found in lowlands or foothills adjacent to streams; it also inhabits humid forests, woodlands, grasslands, and streamsides with plant cover. Adults will use mammal burrows or other refuges, such as moist leaf litter, in upland habitats for estivation (Jennings and Hayes 1994). A buffer of 200 feet (60 meters) from aquatic habitat is sufficient to provide upland foraging and dispersal habitat for most California red-legged frogs inhabiting the project area (USFWS 2006). California red-legged frogs are usually associated with aquatic habitats such as creeks, streams, and ponds, occurring primarily in areas that have pools approximately 3 feet deep with adjacent dense emergent or riparian vegetation (Jennings and Hayes 1988). Adult frogs rarely move large distances from their aquatic habitat.

California red-legged frogs historically occupied portions of the western slope of the Sierra Nevada from Shasta County south to Tulare County, but these populations have been fragmented and nearly eliminated. Currently, only a few drainages in the foothills of the Sierra Nevada are known to support California red-legged frogs (USFWS 2002).

Although there are no CNDDDB records of California red-legged frog within 10 miles of the project area (CNDDDB 2007), suitable habitat in the Sierra Nevada foothills is often located on private land where surveys are infrequently conducted. Within the Spears Ranch property, Coon Creek, Deadman Creek, intermittent creeks, freshwater marshes, and cattle stock ponds provide suitable habitat for California red-legged frog. The presence of bullfrogs in stock ponds and marshes may make these habitats less suitable to unsuitable as spawning and rearing

habitat for this species, but for the purpose of this EIR California red-legged frog are presumed to potentially occur.

### **Foothill Yellow-Legged Frog**

Foothill yellow-legged frog is a state species of special concern (Table 12-4). This species is characteristically found close to water in association with perennial streams and ephemeral creeks that retain perennial pools through the end of summer. In rivers, breeding areas are often associated with confluences of tributary streams that are predominantly perennial (Seldenrich and Pool 2002). These frogs require shallow, flowing streams with some cobble-sized substrate on which they deposit large masses of eggs. Egg laying normally follows the period of high-flow discharge associated with winter rainfall, usually between late March and early June. Eggs hatch in about 15–30 days depending on water temperature, and tadpoles metamorphose into juvenile frogs in 3–4 months.

There are no CNDDDB records of foothill yellow-legged frog within 10 miles of the project area (CNDDDB 2007). However, several of the drainages that cross the Spears Ranch property, especially Coon Creek, may provide suitable breeding pools for foothill yellow-legged frogs. For the purpose of this EIR foothill yellow-legged frog are presumed to potentially occur.

### **Northwestern Pond Turtle**

Northwestern pond turtle is a state species of special concern (Table 12-4). This species generally occurs in streams, ponds, freshwater marshes, and lakes from sea level to about 6,000 feet above sea level. Northwestern pond turtles require still or slow-moving water with instream emergent woody debris, rocks, or other similar features for basking sites. Their nests are typically located on unshaded upland slopes in dry substrates with clay or silt soils. Hatchlings and juveniles require shallow water with abundant emergent vegetation.

Surveys conducted by DFG along Coon Creek in fall 2005 revealed that northwestern pond turtles are present within the Spears Ranch property. A total of 25 individuals were captured at three locations along Coon Creek. In addition, there are two CNDDDB records of northwestern pond turtle within 10 miles of the project area (CNDDDB 2007). These records occur 7.25 miles northeast of the project area along Wolf Creek and 5.25 miles from the project area close to Rock Creek near Camp Far West Reservoir. Suitable aquatic habitat is present in freshwater marshes along Coon Creek and other drainages and stock ponds in the southwestern section of the Spears Ranch property.

## **PROTECTED RAPTORS**

Several raptor species that are considered state species of special concern or state fully protected species—Cooper’s hawk, sharp-shinned hawk, golden eagle, and white-tailed kite—may forage and/or nest in the project area (Table 12-4). Other raptors, including red-shouldered hawk, red-tailed hawk, western screech owl, and great-horned owl (*Bubo virginianus*) also may nest in the project area.

Cooper’s hawks and sharp-shinned hawks typically nest within high crotches or cavities of deciduous trees in oak woodlands and riparian corridors and forage in openings in these woodlands. Golden eagles and white-tailed kites favor open terrain for foraging, such as grasslands, shrublands with tree saplings, and open-canopy blue oak woodlands. The golden eagle prefers cliffs and large trees with large horizontal branches and for roosting and perching.

The nearest record of white-tailed kite is approximately 9 miles south of the project area (CNDDDB 2007). Two golden eagles were observed on the Spears Ranch property during point count surveys (DFG 2007), and three Cooper’s hawks were observed on the Spears Ranch property during playback surveys (DFG 2005). In addition, a golden eagle nest was found within the Park in the southeast corner, within about 100 feet of Whiskey Diggins Canal Road, in 2007. Within the Spears Ranch property, grasslands with scattered oaks in the southwest section of the Spears Ranch property may provide suitable foraging and nesting habitat for white-tailed kite and foraging

habitat for golden eagles. Cliffs with overhanging ledges and large trees (Zeiner et al. 1990) within the Spears Ranch property could also be utilized by golden eagles for nesting habitat. Foothill pine–oak woodland habitats with scattered openings may provide Cooper’s hawks and sharp-shinned hawks with suitable foraging and nesting habitat.

## **OTHER SPECIAL-STATUS BIRDS**

### **California Black Rail**

The California black rail is state listed as threatened and is a fully protected species (Table 12-4). This species typically inhabits coastal tidal and Delta marshes but has been known to utilize freshwater marshes on hardwood rangelands. The black rail typically makes its concealed nest under a mat of dead marsh vegetation. Habitat loss and degradation for this species has resulted primarily from water and flood-control projects, land-use changes, agriculture, and livestock grazing.

One black rail was detected at a freshwater marsh on the Spears Ranch property during a DFG survey in spring 2005 (DFG 2005), but there are no other records of California black rail within 10 miles of the project area (CNDDDB 2007). Freshwater marshes, seeps, blackberry patches, and stock ponds on the Spears Ranch property provide suitable habitat for California black rail.

### **Yellow-Breasted Chat**

Yellow-breasted chat is a state species of special concern (Table 12-4). Yellow-breasted chats typically nest in riparian habitats with a dense shrub layer. They tend to prefer willow, wild grape, and blackberry thickets (Ricketts et al. 2000). They prefer areas of scattered trees, dense shrubbery, and any other moist, shady areas such as willow thickets for nesting.

One yellow-breasted chat was detected on the Spears Ranch property during a DFG survey in spring 2005 (DFG 2005). There are no CNDDDB records of yellow-breasted chats within 10 miles of the project area; however, blackberry thickets surrounding ponds and freshwater marshes on the Spears Ranch property may provide suitable habitat for this species.

### **Loggerhead Shrike**

Loggerhead shrike is a state species of special concern (Table 12-4). Loggerhead shrikes are most commonly found in grasslands, agricultural lands, open shrublands, and open woodlands. Special habitat features that improve shrike abundance, survival, and reproductive success are hunting perches, low nesting trees and shrubs, thorny vegetation, and/or barbed wire on which to impale their prey.

There are no CNDDDB records of this species within 10 miles of the project area; however, grassland habitat interspersed with scattered shrubs and trees in the southwest section of the Spears Ranch property may provide suitable foraging and nesting habitat for the loggerhead shrike.

## **MAMMALS**

### **Ringtail**

Ringtail is a state fully protected species (Table 12-4). This species occurs in mixed riparian and other forest and shrubby habitats, in close association with permanent water and rocky areas (Belluomini 1980). Ringtail use rock crevices, hollow trees, logs, snags, abandoned burrows, or woodrat nests for dens. Ringtail young are typically born in May and June (Belluomini 1980).

Riparian vegetation on the Spears Ranch property provides suitable habitat for ringtail. Surveys conducted by DFG in 2005 along Coon Creek revealed that ringtail is present within the Spears Ranch property (DFG 2005).

### **Townsend's Big-Eared Bat**

Townsend's big-eared bat is a state species of special concern (Table 12-4). This species lives in a variety of communities: coastal conifer and broad-leaf forests, oak and conifer woodlands, arid grasslands and deserts, and high-elevation forests and meadows. Throughout most of its geographic range, it is most common in mesic sites (Kunz and Martin 1982). Known roosting sites in California include limestone caves, lava tubes, mine tunnels, buildings, and other human-made structures (Dalquest 1947; Graham 1966; Pearson, Koford, and Pearson 1952). Habitat for Townsend's big-eared bats must include appropriate roosting, maternity, and hibernacula sites free from disturbances by humans. Females typically roost in large maternity colonies that are highly susceptible to disturbances by humans (Barbour and Davis 1969). Males usually roost singly or in small groups and are probably not affected as much as females by disturbances. Both sexes hibernate in buildings, caves, and mine tunnels, either singly (males) or in small groups (Pearson, Koford, and Pearson 1952).

Townsend's big-eared bats may use rock crevices within foothill pine-oak woodlands and riparian habitat present on the Spears Ranch property.

## **12.2 REGULATORY SETTING**

### **12.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS**

#### **FEDERAL ENDANGERED SPECIES ACT**

Pursuant to the federal Endangered Species Act of 1973 (ESA), as amended (Title 16, Section 1531 et seq. of the U.S. Code [i.e., 16 USC 1531 et seq.]), USFWS has regulatory authority over federally listed species. Under ESA, a permit to "take" a listed species is required for any federal action that may harm an individual of that species. "Take" is defined under Section 9 of ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Under federal regulation, take is defined further to include habitat modification or degradation where it would be expected to result in death of or injury to listed wildlife by significantly impairing essential behavioral patterns (breeding, feeding, or sheltering). In addition to listed species, USFWS publishes a list of candidate species for which it has sufficient biological information to support a proposal to list as endangered or threatened. Species on this list are not protected under ESA, but they receive special attention during environmental review.

Section 7 of the ESA requires all federal agencies to consult with USFWS and NMFS to ensure that their actions are not likely to "jeopardize the continued existence" of any listed species or "result in the destruction or adverse modification" of designated critical habitat. Because implementation of the proposed project could result in the fill of waters of the United States, consultation between USACE, USFWS, and NMFS under Section 7 of ESA would be required for California red-legged frog and Central Valley steelhead. Section 7 of ESA allows USFWS and NMFS to issue a biological opinion authorizing the incidental take of listed species if such take is accompanied by measures to minimize and mitigate impacts associated with the take.

#### **MIGRATORY BIRD TREATY ACT**

The Migratory Bird Treaty Act, first enacted in 1918, domestically implements a series of treaties between the United States and Great Britain (on behalf of Canada), Mexico, Japan, and Russia that provide for international protection of migratory birds. The act authorizes the U.S. Secretary of the Interior to regulate the taking of migratory birds, providing that it shall be unlawful, except as permitted by regulations, "to pursue, take, or kill...any migratory bird, or any part, nest or egg of any such bird, included in the terms of conventions" with certain other countries (16 USC 703). This includes direct and indirect acts, although harassment and habitat

modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the Migratory Bird Treaty Act includes several hundred species and essentially includes all native birds. Migratory birds are found in the project area.

## **SECTION 404 OF THE CLEAN WATER ACT**

Pursuant to Section 404 of the CWA, USACE regulates discharge of dredged or fill material into waters of the United States. Waters of the United States and their lateral limits are defined in Title 33, Part 328.3(a) of the Code of Federal Regulations (i.e., 33 CFR Part 328.3[a]) and include navigable waters of the United States, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. For purposes of describing habitat values and characteristics, waters of the United States are often categorized as “jurisdictional wetlands” (i.e., wetlands over which USACE exercises jurisdiction pursuant to Section 404) and “other waters of the United States.” Fill is defined as any material that replaces any portion of a water of the United States with dry land or changes the bottom elevation of any portion of a water of the United States. Activities resulting in the placement of dredged or fill material within waters of the United States usually require a permit from USACE, even if the area would be dry at the time the activity would take place.

Many surface waters and wetlands in California, including intermittent streams and seasonal lakes and wetlands, meet the criteria for waters of the United States. Jurisdictional waters of the United States in the project area include Coon Creek, intermittent and ephemeral drainages flowing into Coon Creek (e.g., Deadman Creek), stock pond impoundments on those drainages, adjacent freshwater marshes and seeps, and some ditches and canals.

## **12.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS**

### **CALIFORNIA ENDANGERED SPECIES ACT**

Pursuant to Section 2081 of CESA, a permit from DFG is required for projects that would result in the take of a state-listed rare, threatened, or endangered plant or animal species. Under CESA, “take” is defined as an activity that would directly or indirectly kill an individual of a species; however, the CESA definition of take does not include “harming” or “harassing,” as the definition under the federal ESA does. As a result, the threshold for take is higher under CESA than under ESA (i.e., habitat modification is not necessarily considered take under CESA).

### **SECTIONS 3503 AND 3513 OF THE CALIFORNIA FISH AND GAME CODE—PROTECTION OF BIRDS**

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., eagles, hawks, owls, and falcons), including their nests or eggs. Section 3513 provides for adoption of the provisions of the Migratory Bird Treaty Act.

### **FULLY PROTECTED SPECIES UNDER THE CALIFORNIA FISH AND GAME CODE**

Protection of fully protected species is described in four sections of the California Fish and Game Code that list 37 fully protected species (Sections 3511, 4700, 5050, and 5515). These statutes prohibit take or possession of fully protected species. DFG is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species. DFG has informed nonfederal agencies and private parties that they must avoid take of any fully protected species in carrying out projects. Fully protected species known or expected to occur in the project area are golden eagle, white-tailed kite, and ringtail.

## SECTION 1602 OF THE CALIFORNIA FISH AND GAME CODE—STREAMBED ALTERATION

Under Section 1602, it is unlawful for any person, governmental agency, or public utility to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or to deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, without first notifying DFG of such activity. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel having banks that supports fish or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. DFG’s jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A DFG streambed alteration agreement must be obtained for any project that would result in an impact on a river, stream, or lake.

### PORTER-COLOGNE ACT CERTIFICATION

Each of the nine regional water quality control boards (RWQCBs) must prepare and periodically update water quality control plans (basin plans) pursuant to the Porter-Cologne Water Quality Control Act. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to achieve wetland protection based on water quality objectives. Another opportunity for wetland protection is the Section 401 certification process. Under Section 401 of the CWA, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must obtain a certificate from the appropriate state agency stating that the fill is consistent with the state’s water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Resources Control Board to the nine RWQCBs.

### SENATE BILL 1334

Although oak trees and oak woodland habitats are not afforded special protection under federal law, the California Legislature enacted Senate Bill (SB) 1334 (Chapter 732, Statutes of 2004), which added oak woodland conservation regulations to the Public Resources Code. This law requires each county to determine whether a project within its jurisdiction may result in a conversion of oak woodlands resulting in a significant effect on the environment. If a county determines that there may be a significant effect to oak woodland resources, the county must consider alternative approaches to mitigate the effect. Such mitigation alternatives include conservation easements; planting and maintaining an appropriate number of replacement trees; contributing funds to the Oak Woodlands Conservation Fund to purchase oak woodlands conservation easements; and/or other mitigation measures developed by the county.

## 12.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

### PLACER COUNTY GENERAL PLAN

The following are relevant goals and policies identified by the *Placer County General Plan* (Placer County 1994) for biological resources.

- **Policy 6.A.7.** [Placer] County shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.

**GOAL 6.B:** Protect wetland communities and related riparian areas throughout Placer County as valuable resources.

- **Policy 6.B.1.** The County shall support the “no net loss” policy for wetland areas regulated by USACE, USFWS, and DFG. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.

- ▶ **Policy 6.B.4.** The County shall strive to identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and nesting of wetland and riparian species.

**GOAL 6.C:** To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

- ▶ **Policy 6.C.1.** The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:
  - a. wetland areas including vernal pools;
  - b. stream environment zones;
  - c. any habitat for rare, threatened, or endangered animals or plants;
  - d. critical deer winter ranges (winter and summer), migratory routes, and fawning habitat;
  - e. large areas of nonfragment natural habitat, including blue oak woodlands, valley foothill riparian, and vernal pool habitat;
  - f. identifiable wildlife movement zones, including but not limited to nonfragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway; and
  - g. important spawning areas for anadromous fish.
- ▶ **Policy 6.C.6.** The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special-status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.
- ▶ **Policy 6.C.7.** The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or nongame species, through maintenance of habitat diversity.

**GOAL 6.D:** To preserve and protect the valuable vegetation resources of Placer County.

- ▶ **Policy 6.D.3.** The County shall support the preservation of outstanding areas of natural vegetation, including but not limited to oak woodlands, riparian areas, and vernal pools.
- ▶ **Policy 6.D.4.** The County shall ensure that landmark trees and major groves of native trees are preserved and protected. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.
- ▶ **Policy 6.D.6.** The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.
- ▶ **Policy 6.D.7.** The County shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, nutrient catchment, and wildlife habitats. Such communities shall be restored or expanded, where possible.



## **PLACER COUNTY TREE ORDINANCE**

The County Tree Ordinance applies to any project with the potential to affect protected trees. Protected trees are defined as any native tree species with a diameter at breast height (dbh) of 6 inches or greater. The County Tree Ordinance acknowledges Placer County's value for native trees and their preservation. This ordinance prohibits the removal of landmark trees, including stands or groves of native trees, native tree corridors, and other significant native tree habitats. In addition, trees that are designated for preservation and avoidance are not to be damaged. Removal of trees from riparian areas is also prohibited by the ordinance without prior evaluation and consideration of suitable mitigation measures.

## **PLACER COUNTY CONSERVATION PLAN**

The draft *Placer County Conservation Plan* (PCCP) (Placer County 2005) was completed in February 2005 as a means for the County to pursue a natural community conservation plan and a habitat conservation plan for eastern Placer County. The PCCP aims to ensure the continued conservation of threatened and endangered species in Placer County and to resolve potential conflicts between otherwise lawful urban development activities and the conservation of the species on nonfederal land in Placer County. The PCCP encompasses 221,250 acres of western Placer County bordered on the west by Sutter County, on the north by Yuba and Nevada Counties, on the east by El Dorado County, and on the south by Sacramento County. The entire project area is included within the PCCP boundaries.

The PCCP establishes a comprehensive, countywide plan for the conservation of all natural communities, endangered species, and other less sensitive species of native wildlife, fish, and plants in western Placer County and is an important part of the Placer Legacy Open Space and Agricultural Conservation Program (see Section 1.4.1). The PCCP is under consideration by USFWS, NMFS, and DFG, and under the granted permit term is proposed to extend to the year 2050. Once approved, the PCCP would provide the County with a scientific and legal basis for a series of regulatory permits under Section 10 of ESA and authorization issued from DFG under Section 2081 of the California Fish and Game Code, in compliance with CESA that will make the environmental review of future public and private projects more consistent, more predictable and more efficient.

## **12.3 IMPACTS**

### **12.3.1 ANALYSIS METHODOLOGY**

The biological resources investigation involved the following:

- ▶ a literature review,
- ▶ focused wildlife surveys performed by DFG,
- ▶ focused botanical surveys,
- ▶ evaluation of potentially occurring special-status species and other sensitive biological resources, and
- ▶ a preliminary delineation of jurisdictional waters of the United States, including wetlands.

Effects of the proposed project on biological resources were assessed based on the project facilities described in Chapter 3.0, "Project Description."

### **12.3.2 THRESHOLDS OF SIGNIFICANCE**

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on biological resources if it would:

- ▶ substantially affect a rare, threatened, or endangered species;

- ▶ interfere substantially with the movement of any resident or migratory fish or wildlife species;
- ▶ substantially diminish habitat for fish, wildlife, or plants;
- ▶ substantially affect on any riparian areas or wetlands;
- ▶ conflict with any local policies or ordinances protecting biological resources; or
- ▶ conflict with an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Section 15380 of the State CEQA Guidelines further provides that a plant or animal species may be treated as rare or endangered even if it is not on one of the official lists under certain conditions if, for example, it is likely to become endangered in the foreseeable future.

Based on guidelines established by USFWS and DFG, a project could be considered to have a significant adverse impact on biological resources if it would result in substantial disruption to or destruction of any special-status species, its habitat, or breeding grounds. A project would also have a significant impact if it would result in a substantial loss of important plant or animal species or cause a change in species composition, abundance, or diversity beyond that of normal variability.

The construction and long-term use of the proposed trails, facilities, and road improvements along Garden Bar Road would not substantially interfere with the movement of any resident or migratory fish or wildlife species, nor would it affect important deer migration routes (Placer County Fish and Game Commission 1992). Vegetation would be removed only within the trail corridors, along Garden Bar Road, and immediately surrounding structures such as bridges and restrooms. The proposed project would support the plans and policies of the General Plan. The proposed project is within the area covered by the draft PCCP, but not within any adopted conservation plan areas. Because the proposed project would have no impact on these thresholds, they are not discussed further in this chapter.

The Didion Ranch parking area expansion, including relocation of the adjacent helistop, is in an area adjacent to the existing parking area that has been previously graded. A biological resources assessment was conducted by Northfork Associates in 2006, and no biological resources were identified within expansion area. Therefore, it is assumed that there would be no additional impacts to biological resources as a result of the parking area expansion and it will not be discussed further in this chapter.

### 12.3.3 IMPACT ANALYSIS

IMPACT 12-1	<b>Biological Resources—Potential Disturbance of Aquatic Habitats and the Native Fish Community.</b> <i>Several native fish species, including special-status steelhead and fall-/late fall-run chinook salmon, are known to use aquatic habitats in Coon Creek within or immediately downstream of the project area. Implementation of the proposed project could result in temporary and long-term degradation of aquatic habitats, loss of instream cover, and increased injury or mortality of fishes because of increased angling pressure.</i>
Significance	<i>Potentially Significant</i>

**Mitigation Proposed** *Mitigation Measure 12-1: Implement Measures to Protect Aquatic Habitats and the Native Fish Community; Mitigation Measure 12-2: Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State; Mitigation Measure 5-1 in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required; and Mitigation Measure 11-1 in Chapter 11.0, "Hydrology and Water Quality": Prepare and Implement a Grading and Drainage Plan*

**Residual Significance** *Less than Significant*

## **TEMPORARY CONSTRUCTION-RELATED EFFECTS ON AQUATIC HABITATS**

Construction-related increases in sediments and turbidity and the release and exposure of contaminants (e.g., fuels, lubricants) could adversely affect aquatic habitats and fish species immediately adjacent to and downstream of the project area. Increases in turbidity and sediment can harm fish respiration, feeding, and ability to perform other critical basic biological activities. Further, contamination of Coon Creek with construction-related chemicals could impair or even kill aquatic species. Fish population levels and survival have been linked to levels of turbidity and siltation in a watershed. Prolonged exposure to high levels of suspended sediment could create a loss of visual capability in fish, leading to a reduction in feeding and growth rates; a thickening of the gill epithelia, potentially causing the loss of respiratory function; clogging and abrasion of gill filaments; and increases in stress levels, reducing the tolerance of fish to disease and toxicants (Waters 1995).

Also, high levels of suspended sediments would cause the movement and redistribution of fish populations and could affect physical habitat. Once suspended sediment is deposited, it could reduce water depths in pools, decreasing the water's physical carrying capacity for juvenile and adult fish (Waters 1995). Increased sediment loading could degrade food-producing habitat downstream of the project area as well. Sediment loading could interfere with photosynthesis of aquatic flora and displace aquatic fauna. Many fish are sight feeders, and turbid waters reduce the ability of these fish to locate and feed on prey. Some fish, particularly juveniles, could become disoriented and leave areas where their main food sources are located, ultimately reducing their growth rates.

In addition, the potential exists for contaminants such as fuels, oils, and other petroleum products used during construction activities to be introduced into the water system directly or through surface runoff. Contaminants may be toxic to fish or may alter oxygen diffusion rates and cause acute and chronic toxicity to aquatic organisms, thereby reducing growth and survival.

## **LONG-TERM EFFECTS ON AQUATIC HABITATS AND THE FISH COMMUNITY**

Construction of the trail system and bridges over Coon Creek would result in disturbance and removal of native riparian vegetation. Removal of such riparian vegetation or woody material could result in loss of SRA habitat that is important to fish, including special-status species. Construction of the on-site parking areas and access road would remove or adversely affect the dripline of native trees. Further, the construction of 14 miles of new natural-surface trails would increase the amount of soil exposed to erosion. In addition to the new trails that would be constructed in the project area, there are 10 miles of existing ranch roads for hikers, bikers, and equestrians, including bridge crossings over Coon Creek, Deadman Creek, and ephemeral streams. Increased use of these trails could increase erosion and degrade water quality.

Depending on the design used, the construction and long-term presence of bridges across Coon Creek could have an adverse effect on geomorphic processes and associated habitat functions in the creek. If bridge pilings were placed within the active stream channel, they could affect local currents, resulting in modified stream morphology and flow habitats.

As discussed above, DFG sampling in 2005 confirmed the presence of steelhead/rainbow trout in the project reach of Coon Creek and chinook salmon slightly downstream; however, these species were found to be present in low abundance. Increases in the number of anglers related to improved access to fishing locations and associated pressure in the project area could degrade habitats and, depending on the method and equipment used, increased angling pressure could result in varying effects on the fish community. The small populations of anadromous salmonids in Coon Creek could be adversely affected by increased angling pressure and would be subject to a decline in abundance.

Riparian and aquatic habitat restoration projects are planned for the reach of Coon Creek that is within the Park. Restoration of habitat along and within the creek would have a beneficial long-term effect on aquatic habitats and fisheries. These restoration projects would be implemented as funding allows and, therefore, the ultimate extent of restoration is unknown at this time.

## CONCLUSION

Implementation of the proposed project could result in temporary and long-term degradation of aquatic habitats, loss of important SRA habitat functions, and increased injury or mortality of fishes related to increased angling pressure. This impact would be potentially significant. Implementation of Mitigation Measures 12-1, 12-2, 5-1, and 11-1 would reduce this impact to a less-than-significant level.

<b>IMPACT</b> 12-2	<b>Biological Resources—Potential Disturbance of California Red-Legged Frog.</b> <i>Suitable habitat for California red-legged frog exists within the project area. Construction and operation of proposed trails, bridges, septic system, and structures across or adjacent to stock ponds, creeks with backwaters, and freshwater marshes could degrade and possibly result in removal of aquatic habitat or could result in physical injury to red-legged frog.</i>
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<b>Significance</b>	<i>Potentially Significant</i>
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<b>Mitigation Proposed</b>	<i>Mitigation Measure 12-3: Implement Measures to Protect California Red-legged Frog</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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Creeks on the Spears Ranch property, including several areas with freshwater marsh and stock ponds with emergent vegetation, have an intermixed fringe of cattails appropriate for use by California red-legged frog. If California red-legged frog is present in the project area, construction of proposed trails, roads, and foot bridges across drainages, viewing boardwalks, a septic system, and other structures within 200 feet of occupied habitat could directly and indirectly affect California red-legged frogs. Construction at these locations could kill adults, larvae, or eggs. Construction in aquatic sites could also cause loss of habitat. Indirect effects could result from the temporary release of sediments or spills of hazardous materials into occupied aquatic habitat. Trail use is not expected to have a long-term significant effect on California red-legged frogs, because foot bridges and boardwalks would be provided for trail users to avoid long-term damage to waterways. However, the construction-related impact would be potentially significant. Implementation of Mitigation Measure 12-3 would reduce this impact to a less-than-significant level.

**IMPACT 12-3**      **Biological Resources—Potential Disturbance of Foothill Yellow-Legged Frog and Northwestern Pond Turtle.** *Habitat for foothill yellow-legged frog and northwestern pond turtle occurs in the project area. Construction of trails across drainages could degrade aquatic habitat or could result in physical injury to yellow-legged frog and pond turtle.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 12-4: Implement Measures to Protect Foothill Yellow-Legged Frog and Northwestern Pond Turtle*

**Residual Significance**      *Less than Significant*

Foothill yellow-legged frog could occur within the project area. Most of Coon Creek is too wide and deep to support populations of foothill yellow-legged frog; however, a few areas along Coon Creek have terraces and small pools with tail-outs that may have appropriate substrate and water velocity for egg deposition and development. Northwestern pond turtle occurs in Coon Creek and may occur in other drainages and stock ponds in the southwestern section of the Park.

Construction and installation of proposed trails, roads, and foot bridges across drainages, viewing boardwalks, a septic system, and other structures during the breeding season may affect foothill yellow-legged frog and northwestern pond turtles by causing the temporary release of sediments in the water. Direct effects could result from physically disturbing foothill yellow-legged frog egg masses, larvae, or adults. Indirect effects could result from the release of sediments or hazardous materials into aquatic habitat. Northwestern pond turtle could also be affected in the same manner by construction of viewing boardwalks at stock ponds.

Trail use is not expected to have a significant effect on foothill yellow-legged frogs or northwestern pond turtle because crossings over Coon Creek would be provided for trail users to avoid impacts on waterways. However, construction-related impacts would be potentially significant. Implementation of Mitigation Measure 12-4 would reduce this impact to a less-than-significant level.

**IMPACT 12-4**      **Biological Resources—Potential Disturbance of Nests of Raptors and Other Birds.** *Trees and other vegetation in and adjacent to the project area provide potential nest sites for raptors and migratory birds. Removal of trees or other vegetation during construction and maintenance of trails and fuel breaks and for road improvements could destroy or disturb nests, resulting in loss of eggs or young. Use of the Park by reservation-based events may also cause nest failure. Use of trails could cause potential temporary disturbance to golden eagle nest sites.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 12-5: Implement Measures to Protect Raptors and Other Nesting Birds*

**Residual Significance**      *Less than Significant*

Removal of vegetation would occur between September to March, outside of the raptor breeding season, or outside of nesting areas identified during preconstruction surveys. Removal of trees greater than 6 inches dbh would be avoided to the extent possible; however, removal of some trees to conduct road improvements and to

construct and install bridges, trails, and other structures may be unavoidable. Removal of trees and shrubs could result in loss of golden eagle nests and migratory birds. Indirect disturbance during construction or during reservation-based events permitted in the Park (e.g. filming movies) could also result in the loss of raptor nests.

Nesting golden eagles are particularly sensitive to disturbances near their nests. In 2007 a golden eagle nest was documented within 100 feet of a Park road that would be used as a trail. Public use of trails in the Park could result in an elevated level of disturbance to golden eagle nests near trails, which could cause the abandonment or failure of an active nest. Therefore this impact would be potentially significant. Implementation of Mitigation Measure 12-5 would reduce this impact to a less-than-significant level.

**IMPACT 12-5**      **Biological Resources—Potential Disturbance of Dens and Individual Ringtails.** *Trees along riparian portions of the project area such as Coon Creek that are 6 inches or greater dbh and are hollow or have large cavities provide potential den sites for ringtail. Removal of such trees or other vegetation during trail construction and for road improvements could destroy dens, resulting in potential loss of adults and/or young.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 12-6: Implement Measures to Protect Ringtail and Townsend's Big-Eared Bat*

**Residual Significance**      *Less than Significant*

Although removal of trees greater than 6 inches dbh that are hollow or contain large cavities would be avoided during construction to the extent possible, removal of some trees in riparian areas to construct trails would be unavoidable. Removal of these trees could result in loss of ringtail dens and loss of adults and/or young. This impact would be potentially significant. Implementation of Mitigation Measure 12-6 would reduce this impact to a less-than-significant level.

**IMPACT 12-6**      **Biological Resources—Potential Disturbance of Townsend's Big-Eared Bat Habitat or Individuals.** *Limited habitat for Townsend's big-eared bats occurs in the project area. Construction of trails, bridges, and structures could result in the disturbance of Townsend's big-eared bat maternity or winter roosts.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 12-6: Implement Measures to Protect Ringtail and Townsend's Big-Eared Bat*

**Residual Significance**      *Less than Significant*

Townsend's big-eared bat, which is a state species of special concern, could occur within the project area. This species may use rock crevices for roosting within foothill pine-oak woodlands and riparian habitat present in the project area. Construction of trails, bridges, and structures could result in the disturbance of Townsend's big-eared bat maternity or winter roosts. This species uses rock crevices, bridges, and other artificial structures for roosting. Also, vibrations and noise associated with construction could disturb bats roosting adjacent to construction activities. This impact would be potentially significant. Implementation of Mitigation Measure 12-6 would reduce this impact to a less-than-significant level.

**IMPACT 12-7**      **Biological Resources—Potential Loss of Brandegee's Clarkia.** *Populations of Brandegee's clarkia were documented in the Spears Ranch portion of the Park. Construction of trails, fuel breaks, parking areas, and road improvements along Garden Bar Road could potentially disturb known populations of Brandegee's clarkia.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 12-7: Implement Measures to Protect Brandegee's Clarkia*

**Residual Significance**      *Less than Significant*

Multiple populations of Brandegee's clarkia, a CNPS List 1B plant species, were observed and mapped throughout the Spears Ranch property during focused botanical surveys. Construction of trails, fuel breaks, parking areas, and Park facilities could potentially result in reductions of these populations. Most of the populations of Brandegee's clarkia occur along existing roads on roadcuts. Brandegee's clarkia is an annual plant and is somewhat tolerant to disturbance, especially if the ground disturbance occurs once the plant has dispersed its seeds in the fall. However, road widening or trail construction has the potential to remove entire populations of Brandegee's clarkia. Therefore, this impact would be potentially significant. Implementation of Mitigation Measure 12-7 would reduce this impact to a less-than-significant level.

**IMPACT 12-8**      **Biological Resources—Impacts on Waters of the United States and Waters of the State.** *A preliminary wetland delineation identified approximately 31.5 acres of potentially jurisdictional waters of the United States and waters of the state on the Spears Ranch property and along Garden Bar Road. Although the majority of this area would be avoided and not affected by project implementation, installation of stream crossings and bridges, viewing boardwalks, and trail construction in the project area and road improvements along Garden Bar Road could result in the fill of jurisdictional waters of the United States and waters of the state, including wetlands.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 12-2: Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State*

**Residual Significance**      *Less than Significant*

Construction of the trail system would minimize fill of jurisdictional waters through design and location. However, trail construction would require the installation of multiple stream crossings and three bridges across Coon Creek and other drainages. Placement of trail material or bridge footings in the drainages or in adjacent wetlands, and construction of a viewing boardwalk adjacent to one of the stock pond would fill jurisdictional waters of the United States and waters of the state. Road widening along Garden Bar Road and the access road between Garden Bar Road and the Park would also result in permanent and temporary fill of jurisdictional waters of the United States and waters of the state. Temporary and permanent impacts to waters of the United States and waters of the state from construction of project facilities and improvements to Garden Bar Road and the access road to the western parking area would be less than 0.5 acre. Because the proposed project would have an impact on waters of the United States and waters of the state, this impact would be potentially significant. Implementation of Mitigation Measure 12-2 would reduce this impact to a less-than-significant level.

**IMPACT 12-9**      **Biological Resources—Impacts on Oak Woodland Habitat.** *The proposed project may result in the removal of trees that are 6 inches dbh or larger from oak woodland habitat. Native oak trees are protected under the Placer County Tree Ordinance and SB 1334.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 12-8: Protect Oak Woodland Habitat*

**Residual Significance**      *Less than Significant*

Although removal of trees greater than 6 inches dbh would be avoided to the extent possible by refining precise facility locations and trail alignments and constructing road improvements on the side of the road with the least amount of trees, some tree removal as a result of construction of the proposed project may be unavoidable. Fuel load reduction activities performed in the Park under the guidance of a registered forester and approved by the fire authority would not include removal of oaks larger than 6 inches dbh. This includes the establishment of shaded fuel breaks. All status oaks were avoided during trail layout within the Didion Ranch portion of the Park. In addition, a 2-year post construction survey by a qualified biologist within the Didion portion of the Park confirmed that there was negligible impact to the health of oaks adjacent to the newly constructed trail system. Similar construction methods would be used for the development of trails within the Spears Ranch Portion of the Park so that oak impacts associated with trail construction would be minimized. Although tree removal would be avoided to the extent possible, some trees greater than 6 inches dbh may need to be removed. Native trees that are 6 inches dbh or larger are protected under the Placer County Tree Ordinance and oak woodland habitat is protected under SB 1334 (2004). This impact would be potentially significant.

Implementation of Mitigation Measure 12-8 would reduce this impact to a less-than-significant level.

## 12.4 MITIGATION MEASURES

**Mitigation Measure 12-1: Implement Measures to Protect Aquatic Habitats and the Native Fish Community.**

*Mitigation Measure 12-1 applies to Impact 12-1.*

The County and its primary construction contractor shall implement the following measures to reduce impacts on aquatic habitats and the native fish community in the project area:

- ▶ All in-water construction activities shall be conducted during months when sensitive fish species are less likely to be present or less susceptible to disturbance (i.e., April 15 - October 15 or as directed by DFG).
- ▶ The County shall obtain and implement the conditions of a streambed alteration agreement. DFG shall be consulted regarding potential disturbance to fish habitat, including SRA habitat, as part of the process for obtaining a streambed alteration agreement, pursuant to Section 1602 of the California Fish and Game Code. Affected habitats shall be replaced and/or rehabilitated to the extent feasible and practicable. The acreage of riparian habitat that would be removed shall be replaced or rehabilitated on a “no-net-loss” basis in accordance with DFG regulations and as specified in the streambed alteration agreement. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to DFG. Minimization and compensation measures adopted through the permitting process shall be implemented.



- ▶ The County shall consult and coordinate with DFG to develop regulations and limits for angling in Coon Creek, restrict angling activities while adult steelhead and salmon are present, and coordinate on enforcement of the area to monitor and regulate fishing activities.

Implementation of this mitigation measure along with Mitigation Measure 12-2 below, Mitigation Measure 5-1 in Chapter 5.0, “Soils, Geology, and Seismicity,” and Mitigation Measure 11-1 in Chapter 11.0, “Hydrology and Water Quality,” would reduce Impact 12-1 to a less-than-significant level.

**Mitigation Measure 12-2: Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State.**

*Mitigation Measure 12-2 applies to Impacts 12-1 and 12-8.*

Prior to construction, the County shall obtain a verified wetland delineation from USACE. Based on the results of the verified delineation, the County shall commit to replace, restore, or enhance on a “no net loss” basis, in accordance with USACE and the Central Valley RWQCB, the acreage of all waters of the United States and wetland habitats that would be affected by implementation of the project. Wetland restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the Central Valley RWQCB, as determined during the Sections 404, 1602, and 401 permitting processes.

The County shall either obtain credits from an approved mitigation bank, at a rate determined by USACE, to replace lost wetland values at a 1:1 ratio, or shall prepare and submit a wetland mitigation and monitoring plan to USACE for the creation of jurisdictional waters at a mitigation ratio no less than 1 acre of created water of the United States, including wetlands, for each acre filled. The mitigation plans shall demonstrate how the USACE criteria for jurisdictional waters will be met through implementation. The wetland mitigation and monitoring plan shall include the following:

- ▶ target areas for creation,
- ▶ a complete biological assessment of the existing resources on the target areas,
- ▶ specific creation and restoration plans for each target area,
- ▶ performance standards for success that will illustrate that the compensation ratios are met, and
- ▶ a monitoring plan, including schedule and annual report format.

The County shall secure the following permits and regulatory approvals, as necessary, and implement all permit conditions before implementation of any construction activities associated with the proposed project.

- ▶ Authorization for the fill of jurisdictional waters of the United States shall be secured from USACE through the CWA Section 404 permitting process before any fill is placed in jurisdictional wetlands. Timing of compliance with the specific conditions of the 404 permit shall be in accordance with conditions specified by USACE as part of permit issuance. In its final stage and once approved by USACE, this mitigation plan shall detail proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of jurisdictional wetlands function and services in the project vicinity. As required by Section 404, approval and implementation of the wetland mitigation and monitoring plan shall ensure no net loss of jurisdictional waters of the United States, including jurisdictional wetlands.
- ▶ Water quality certification pursuant to Section 401 of the CWA is required as a condition of issuance of the 404 permit. Before construction in any areas containing wetland features, the County shall obtain water quality certification for the project. Any measures required as part of the issuance of water quality certification shall be implemented.

Implementation of this mitigation measure along with Mitigation Measure 12-1 above, Mitigation Measure 5-1 in Chapter 5.0, “Soils, Geology, and Seismicity,” and Mitigation Measure 11-1 in Chapter 11.0, “Hydrology and Water Quality,” would reduce Impacts 12-1 and 12-8 to a less-than-significant level.

### Mitigation Measure 12-3: Implement Measures to Protect California Red-Legged Frog.

*Mitigation Measure 12-3 applies to Impact 12-2.*

The County and its primary contractor shall implement the following measures to reduce impacts on California red-legged frogs:

- ▶ Before any work in or within 200 feet of aquatic habitat, the County shall determine whether aquatic habitat is occupied by California red-legged frog, in consultation with USFWS. This determination may be supported by a habitat assessment for California red-legged frog prepared according to USFWS guidelines (USFWS 2005) as revised, and focused surveys if recommended by USFWS. If aquatic habitat in the project area is not occupied by California red-legged frog, there would be no impacts on this species and no further mitigation would be required.
- ▶ If aquatic habitat in the project area is occupied by California red-legged frog, the County shall minimize impacts on California red-legged frog by implementing the following measures:
  - Worker awareness training shall be provided to construction crews working in California red-legged frog habitat. At a minimum, the training shall include a description of California red-legged frog and its habitat and their importance, general measures that are being implemented to conserve California red-legged frog as such measures relate to the project, and the boundaries within which construction activities shall occur.
  - Suitable California red-legged frog habitat shall be surveyed 2 weeks before the start of construction activities. If California red-legged frogs, tadpoles, or eggs are found, they may be moved from the project area only with regulatory agency approval. If California red-legged frogs are not identified, construction may proceed.
  - Exclusionary fencing (i.e., silt fences) shall be installed no more than 200 feet around all areas that are within or adjacent to California red-legged frog habitat.
  - A USFWS-approved biologist shall be present at active project areas until the removal of California red-legged frog, instruction of workers, and habitat disturbance have been completed. After this time, the County shall designate a person to monitor on-site compliance with all minimization measures.
  - If any work area will be temporally dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters. Water shall be released downstream at an appropriate rate to maintain downstream flows during construction and in such a manner as to prevent erosion. Dewatering structures shall be removed upon completion of the project.
  - Guidelines shall be implemented to protect water quality and prevent erosion, as outlined in the best management practices (BMPs) in Mitigation Measure 11-1, "Obtain Authorization for Construction Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required."
  - The County shall compensate for permanently lost habitat by developing and/or implementing a habitat creation/restoration plan for California red-legged frog. This plan shall, at a minimum, compensate for lost habitat on an acre-for-acre basis, and it shall include verifiable performance criteria and remediation measures developed with USFWS during the Section 7 consultation process.

Implementation of this mitigation measure would reduce Impact 12-2 to a less-than-significant level.

#### Mitigation Measure 12-4: Implement Measures to Protect Foothill Yellow-Legged Frog and Northwestern Pond Turtle.

*Mitigation Measure 12-4 applies to Impact 12-3.*

The County and its contractor shall implement the following measures to reduce impacts on foothill yellow-legged frogs and northwestern pond turtles:

- ▶ Construction of foot bridges and trails across smaller drainages shall occur when the drainages are dry, to the extent feasible.
- ▶ Before any work in Coon Creek, the County shall determine, in consultation with DFG, whether aquatic habitat at work sites would support foothill yellow-legged frog and/or northwestern pond turtle habitat. If no aquatic habitat for foothill yellow-legged frog or northwestern pond turtle habitat occurs at a work site, there would be no impacts on these species and no further mitigation is required.
- ▶ If aquatic habitat for foothill yellow-legged frog and/or northwestern pond turtle is present at work sites, the County shall minimize impacts on these species by implementing the following measures:
  - Worker awareness training shall be provided to construction crews working in foothill yellow-legged frog and northwestern pond turtle habitat. At a minimum, the training shall include a description of foothill yellow-legged frog and northwestern pond turtle and their habitats and their importance, general measures that are being implemented to conserve foothill yellow-legged frog and northwestern pond turtle as such measures relate to the project, and the boundaries within which construction activities shall occur.
  - Suitable foothill yellow-legged frog and northwestern pond turtle aquatic habitat shall be surveyed within 2 weeks before the start of construction activities. If northwestern pond turtles or foothill yellow-legged frogs, tadpoles, or eggs are found, they may be moved from the project area only with DFG approval. If neither northwestern pond turtle nor foothill yellow-legged frog is identified, construction may proceed.
  - A qualified biologist holding the appropriate permits shall be present at active work sites until the removal of foothill yellow-legged frog and northwestern pond turtle, instruction of workers, and habitat disturbance have been completed. After this time, the County shall designate a person to monitor on-site compliance with all minimization measures.
  - If any work site will be temporally dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters. Water shall be released downstream at an appropriate rate to maintain downstream flows during construction and in such a manner as to prevent erosion. Dewatering structures shall be removed upon completion of the project.
  - Guidelines shall be implemented to protect water quality and prevent erosion, as outlined in the BMPs in Mitigation Measure 11-1, "Obtain Authorization for Construction Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required."

Implementation of this mitigation measure would reduce Impact 12-3 to a less-than-significant level.

#### Mitigation Measure 12-5: Implement Measures to Protect Raptors and Other Nesting Birds.

*Mitigation Measure 12-5 applies to Impact 12-4.*

The County and its contractors shall implement the following measures to reduce impacts on raptors and other nesting birds:

- ▶ If trees larger than 6 inches dbh must be removed, then the following mitigation measures shall be implemented:
  - Tree removal shall be completed in accordance with the Placer County Tree Ordinance.
  - For any construction activities that take place between March 1 and August 31 (raptor breeding season), preconstruction or pre-event surveys for active raptor nests shall be conducted no more than 2 weeks prior to the start of the activity. If no active raptor nests are found, no further mitigation is required. If any active raptor nests are identified during surveys, then impacts on active raptor nests shall be avoided by establishing minimum buffers of 500 feet (0.25 mile for golden eagle) until young have fledged or the nest is otherwise no longer active. These buffers may be reduced if a qualified biologist determines that such a reduction would not risk failure of a nest.
- ▶ If active golden eagle nests are located within 0.25-mile of public trails or roads, the County shall:
  - Notify DFG of the nest; and
  - Cooperate with DFG in implementation of measures to protect the nests during nesting.

Implementation of this mitigation measure would reduce Impact 12-4 to a less-than-significant level.

#### **Mitigation Measure 12-6: Implement Measures to Protect Ringtail and Townsend's Big-Eared Bat.**

*Mitigation Measure 12-6 applies to Impacts 12-5 and 12-6.*

The County and its contractor shall implement the following measures to protect Townsend's big-eared bat and ringtail:

- ▶ A qualified biologist shall conduct pre-construction surveys to identify bat hibernation roost and maternity sites and potential ringtail den sites in suitable habitat within 100 feet of proposed trails (i.e., those areas directly affected by trail construction). For bats, roost habitat surveys should focus on locations of mine tunnels, caves, abandoned buildings, and rock crevices; for ringtail, potential den site surveys should focus on locations of trees 6 inches dbh or greater in riparian areas.
- ▶ The County shall avoid locating trails within 100 feet of bat roosts and ringtail dens. If avoidance is not possible, the County shall survey those locations to determine if they are occupied by the target species. If sites are not occupied, they may be sealed or removed in accordance with the following specifications:
  - Potential Townsend's big-eared bat nursery roosts may be sealed from September through March, before the nursery season. The County shall verify that the potential roost is not occupied immediately before sealing it.
  - Potential Townsend's big-eared bat hibernation roosts may be sealed from April through October, prior to before the hibernation season. The County shall verify that the potential roost is not occupied immediately before sealing it.
  - Potential ringtail den sites may be removed only from September through April. The County shall verify that the potential den is not occupied immediately before sealing it.

Implementation of this mitigation measure would reduce Impact 12-5 to a less-than-significant level.

#### Mitigation Measure 12-7: Implement Measures to Protect Brandegee's Clarkia.

*Mitigation Measure 12-7 applies to Impact 12-7.*

The County and its contractor shall implement the following measures to protect Brandegee's clarkia populations:

- ▶ The locations of known Brandegee's clarkia occurrences in the project area shall be clearly marked for avoidance by construction crews before the commencement of project construction activities.
- ▶ If construction activities cannot avoid Brandegee's clarkia occurrences, then prior to commencement of construction, the following measures shall be implemented:
  - Information on Brandegee's clarkia occurrences in the project area shall be recorded on California Native Species Field Survey Forms and submitted to the CNDDB.
  - Seed from Brandegee's clarkia populations shall be collected and redistributed into suitable habitat by a qualified botanist. Seed shall be distributed over an area twice the size of the affected area. Because Brandegee's clarkia is an annual plant that is tolerant of some disturbance, this measure will allow the perpetuity of populations in the project area and minimize the impact of project activities.

Implementation of this mitigation measure would reduce Impact 12-7 to a less-than-significant level.

#### Mitigation Measure 12-8: Protect Oak Woodland Habitat

*Mitigation Measure 12-8 applies to Impact 12-9.*

If removal of native trees larger than 6 inches dbh is required during construction of the proposed project, the County shall compensate for removal of those trees by paying in-lieu fees into the County approved oak woodland preservation fund as stipulated in the Placer County Tree Ordinance and in consultation with a certified arborist.

Implementation of this mitigation measure would reduce Impact 12-9 to a less-than-significant level.

## **13.0 PUBLIC SERVICES AND UTILITIES**

This chapter describes the existing public services and utilities for the project area and any impacts anticipated with implementation of the proposed project. Public services and utilities included in this discussion are water, wastewater, fire protection, police protection, public schools, and maintenance of public facilities. Runoff and water quality are discussed in Chapter 11.0, “Hydrology and Water Quality.”

### **13.1 Environmental Setting**

The project area is outside of existing municipal service areas for water and wastewater. The Spears Ranch portion of the Park contains an existing ranch house, with two supporting structures. Each of the buildings was formerly used as a single-family residence; the remainder is open space, including Coon Creek, which flows from the eastern portion of the Spears Ranch property to the westernmost property boundary. Other waterways within the Spears Ranch portion of the Park include Deadman Creek and Whiskey Diggins Canal.

#### **13.1.1 WATER**

Water sources in the project area are groundwater, Coon Creek, Deadman Creek, and Whiskey Diggins Canal. Potential groundwater sources in the area are rock fractures found in the existing hardpan; regional groundwater levels are expected to be greater than 50 feet in depth. An existing groundwater well serves the ranch house. For a more detailed description of water resources in the project area, see Chapter 11.0, “Hydrology and Water Quality.”

#### **13.1.2 WASTEWATER**

There is a septic system at the ranch house site; however, soils on-site are not optimal for septic systems. Soil data provided by the U.S. Geological Survey indicate limitations on the ability of project area soils to support the use of on-site sewage disposal, in which effluent from a septic tank is distributed into the soil through subsurface perforated pipe. Specifically, all soil complexes in the project area exhibit restricted permeability as a result of limited depth to bedrock or hardpan (USGS 2007). However, soil testing conducted for the project in 2008 indicated that soils suitable for septic systems exist in the southwest portion of the Park.

#### **13.1.3 OTHER UTILITIES**

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to most of Northern California and would supply the project area. AT&T provides telephone and communication services to the area, and the project area is within the service area of Auburn Placer Disposal Service. This company provides garbage pickup services and pickup service for recyclable materials.

#### **13.1.4 PUBLIC SCHOOLS**

The project area is located in the Western Placer Unified School District, headquartered in Lincoln. Carlin C. Coppin Elementary School is the closest elementary school to the project area, located in the town of Lincoln approximately 9 miles from the project area. Carlin C. Coppin serves students from kindergarten through 5th grade (Carlin C. Coppin Elementary School 2007). The closest middle school to the project area is Glen Edwards Middle School, which is located in Lincoln approximately 11 miles from the project area and serves grades 6–8 (Western Placer Unified School District 2007). Lincoln High School, which serves grades 9–12, is the closest high school, also located in Lincoln approximately 10 miles from the project area (Lincoln High School 2007).

### 13.1.5 FIRE PROTECTION

The project area is within the fire protection area covered by the California Department of Forestry and Fire Protection (CalFire), under contract with the County. CalFire utilizes ground personnel/equipment and aerial equipment to fight fires within the project area (Placer County 2007). The project area is served by two of CalFire's existing staffed stations and two volunteer stations. The Ophir fire station is located on Wise Road in Auburn, approximately 12 miles southeast of the project area, and the Lincoln station is located on Oak Tree Lane in Lincoln, approximately 13.5 miles southwest of the project area. These stations have a total of two engines and a minimum of four full-time staff members. The Thermaland volunteer fire station, approximately 5 miles west of the project area, and the Fowler volunteer fire station, approximately 7.5 miles south, also serve the project area. Staffing levels are generally greater in the summer months (during fire season) and less in winter months because of the reduced demand for fire services. The two volunteer stations would be capable of providing four to 12 volunteer firefighting staff during an on-call situation (Eicholtz, pers. comm., 2007). According to the *Placer County General Plan* (General Plan), the County encourages the local fire protection agencies in the county to maintain an emergency response time of 10 minutes in rural areas of the county.

### 13.1.6 POLICE PROTECTION

Law enforcement services for the project area are provided by the County Sheriff's Department. The main station is based in Auburn. The Sheriff's Department operates three substations and three "service centers." The nearest facility to the project area that provides full police protection services is the Auburn station. Currently, the Auburn station is staffed by 25 patrol deputies and six patrol sergeants. In 2004, the station received approximately 51,000 calls for service from the reporting district in which the project is located.

## 13.2 REGULATORY SETTING

### 13.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulations, or laws related to public services are applicable to the proposed project.

### 13.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

No state plans, policies, regulations, or laws related to public services are applicable to the proposed project.

### 13.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

#### PLACER COUNTY GENERAL PLAN

The following are the relevant goals and policies identified by the *Placer County General Plan* (General Plan) (Placer County 1994) for public services.

**GOAL 4.H:** To provide adequate sheriff services to deter crime and to meet the growing demand for services associated with increasing population and commercial/industrial development in the county.

- ▶ **Policy 4.H.2.** The County Sheriff shall strive to maintain the following average response times for emergency calls for service:
  - a. 6 minutes in urban areas
  - b. 8 minutes in suburban areas
  - c. 15 minutes in rural areas
  - d. 20 minutes in remote rural areas

**GOAL 4.I:** To protect residents of and visitors to Placer County from injury and loss of life and to protect property and watershed resources from fires.

- ▶ **Policy 4.I.2.** The County shall encourage local fire protection agencies in the County to maintain the following standards (expressed as average response times to emergency calls):
  - a. 4 minutes in urban areas
  - b. 6 minutes in suburban areas
  - c. 10 minutes in rural areas

## **HIDDEN FALLS REGIONAL PARK VEGETATION, FUELS AND RANGE MANAGEMENT PLAN**

The following fire prevention measures, derived from the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan*, apply to the project area and would be implemented by the County.

### **Short-Term (Less than 5 Years) Recommendations:**

- ▶ Create defensible space (150 feet) around the perimeter of the parking/improvement area at the southeastern end of Park.
- ▶ Acquire an industrial-use knife chipper capable of chipping material up to 12 inches in diameter or participate in the existing County chipper program.
- ▶ Construct and maintain a fire-safe area adjacent to the interior park management road/emergency access down to and across Deadman Creek for 20 feet either side of the centerline of the road with at least 15 feet ground clearance above the road.
- ▶ Create shaded fuel break areas using hand crews and a chipper.
- ▶ Flag all boundaries of work areas and put up temporary signs to educate the public about shaded fuel breaks.
- ▶ Develop a plan that will outline measures to maintain defensible space around existing and proposed facilities, roads, and shaded fuel breaks.
- ▶ Finalize long-term plans for the Spears Ranch portion of the Park, including siting development areas and storage of park maintenance and emergency vehicles.
- ▶ Investigate options for locating a permanent crossing of Coon Creek, capable of supporting 90,000 pounds of heavy equipment.

### **Long-Term (More than 5 Years) Recommendations:**

- ▶ Based on infrastructure plans, select one of the shaded fuel break areas that will help lower potential fire danger for those sites and assist in fighting fire.
- ▶ Create fire-safe areas adjacent to the main vehicle-access road system, including park maintenance/emergency access roads.
- ▶ Thin and clear defensible space areas around Park improvements such as buildings, parking areas, etc., as they are planned and built in the western portion of the Park.
- ▶ Thin out vegetation and mow grass-size vegetation in selected shaded fuel break areas.
- ▶ Develop a maintenance program for maintaining all defensible space, fire-safe, and shaded fuel break areas.



## **Grazing Recommendations**

- ▶ The Park can either continue to be grazed on a year-round basis or seasonally.
- ▶ Carrying capacity estimates indicate that 75 cows would be an appropriate number to graze on a year-round basis in normal rainfall years.
- ▶ Develop at least two more livestock watering points, one on the Didion Ranch portion of the Park and the other on Spears Ranch portion of the Park to help improve livestock distribution.
- ▶ Consider the use of goats and/or sheep to reduce fuel loads, maintain shaded fuel breaks, and control noxious plants.
- ▶ Consider multi-species grazing to maintain shaded fuel breaks as the issues of electric fencing and guard dogs and public access are discussed. For the short term, it may make the most sense to use mechanical chipping and/or mowing to maintain the fuel breaks.

## **13.3 IMPACTS**

### **13.3.1 ANALYSIS METHODOLOGY**

Potential impacts on water, wastewater, fire protection, police protection, public schools, and other public facilities that would result from the proposed project were identified by comparing existing service capacity and facilities against anticipated future demand associated with implementation of the proposed project.

### **13.3.2 THRESHOLDS OF SIGNIFICANCE**

Thresholds for determining the significance of impacts on public utilities and services were based on the Placer County CEQA checklist and Appendix G of the State CEQA Guidelines. The project would have a significant impact on public services or utilities if it would:

- ▶ exceed wastewater treatment requirements of the applicable regional water quality control board;
- ▶ require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- ▶ require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- ▶ have insufficient water supplies available to serve the project and require new or expanded entitlements; or
- ▶ result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable ratios, response times, or other performance objectives for any of the public services (i.e., fire, police, schools, parks, and other public facilities).

Because the proposed project does not include new development, it would not result in demand for increased natural gas facilities or communication systems beyond their current capacity. Therefore, increased demand for these services is not evaluated further. Impacts related to water quality and water supply are discussed in Chapter 11.0, "Hydrology and Water Quality."

### 13.3.3 IMPACT ANALYSIS

IMPACT 13-1	<b>Public Services and Utilities—Potential for Damage to Water or Wastewater Facilities.</b> <i>Implementation of the proposed project would require the installation of up to two groundwater wells and a septic system within the Spears Ranch portion of the Park, and the existing groundwater well and septic system could be upgraded or abandoned and replaced as part of the project. The project would not damage any public water or wastewater facilities.</i>
Significance	<i>Less than Significant</i>
Mitigation Proposed	<i>None Warranted</i>
Residual Significance	<i>Less than Significant</i>

Up to two groundwater wells would be required for drinking water and restrooms as required to accommodate Park needs. The project would include renovation of the existing ranch house, and the two existing buildings southwest of the ranch house. Additional buildings may be constructed near the existing ranch house for overnight camp functions or environmental education. If constructed, these buildings would be within the facility development zone. Water for irrigation would continue to be supplied by the Nevada Irrigation District canal on the property, and irrigation needs are expected to be similar to past irrigation patterns.

Uses within the Park would include hiking, biking, equestrian uses, informational/educational classes and programs, multiple-day or overnight educational, agricultural, cultural, and scouting camps (subject to agreement and conditions determined by the County on a case-by-case basis), and access for school programs such as cross-country training and meets, and educational field trips that are consistent with passive recreation and education. The proposed uses within the Park, such as reservation-based events could result in an increase in Park attendance for the duration of the event. Any reservation-based events that would exceed the capacity of the on-site restrooms would need to supply portable toilets and any reservation-based events that would exceed the capacity of on-site wells would be required to supply their own water.

The existing water well on-site would be either rehabilitated to public-well standards or abandoned and replaced with a new well. A licensed well driller would be required to assess well locations and alternatives. A separate well would be drilled near the western parking area to serve the proposed restroom. A permit to construct the groundwater well and a public water provider's permit would be required. Although the existing well could be abandoned, it is not currently used for public consumption, and it would be replaced by another well that could better serve the Park, if rehabilitation is not feasible.

The proposed project would include permanent restroom facilities or portable and/or vault type restroom facilities. Restroom facilities would use low-flow toilets to reduce the use of water within the Park. The existing septic system constructed to serve the ranch house would be either used as is, expanded, or replaced, depending on its current condition and capacity needs for the future use of the ranch house. In addition, a new septic system would be installed to serve the parking-area restroom located at the entrance of the Park. This septic system would be located in the southwest portion of the Park. Associated underground pipelines would also be constructed to connect the septic system to the parking area and to the bunkhouse area. A contractor would remove septic tank sludge from the project area. Because the existing septic system does not currently support public use, it would be expanded or replaced by another septic system that could better serve the proposed uses around the existing ranch house.

Because no on-site water or wastewater facilities would be damaged as a result of the project and adequate water and wastewater facilities would be included for proposed uses, this impact would be less than significant.

**IMPACT 13-2**      **Public Services and Utilities—Increase in Demand for Police Services.** *Use of the proposed Park would increase demand for police services in the project area. However, measures would be taken to minimize such demand.*

**Significance**      *Less than Significant*

**Mitigation Proposed**      *None Warranted*

**Residual Significance**      *Less than Significant*

The proposed project would lead to an increase in the number of visitors to the project area, which is located in a rural area between Auburn and Lincoln. Park use would occur primarily from sunrise to sunset, with limited overnight use subject to County approval on a case-by-case basis. Primary use of the area would include hiking, biking, and equestrian uses, as well as educational programs; and access for school programs such as cross-country training and meets, and educational field trips that are consistent with passive recreation and education would occur within the Park.

The increased visitation would add to existing law enforcement demands in the area; however, oversight of the Park would be provided through the collective efforts of the County Sheriff's Department, County maintenance staff, volunteer patrol groups, and users of the trails and facilities. It is also expected that a full-time caretaker may live on the Park grounds, which is expected to reduce the number of incidents of vandalism, crime, and misuse of Park property. In addition, the Park would be closed at night and all gates on access roads to the Park would be locked to further deter unauthorized activities.

Because the collective options for Park patrol would reduce illegal activities, the project would not place a significant demand on existing police services. Therefore, this impact would be less than significant.

**IMPACT 13-3**      **Public Services and Utilities—Increase in Demand for Fire Services.** *Construction and use of the Park facilities may increase the risk of wildfire in the project area because more people would be allowed into an area that is not currently open to the public. However, the County would implement measures to reduce the potential for a fire within the Park. Therefore, the project is not expected to cause a significant increase in demand for fire services.*

**Significance**      *Less than Significant*

**Mitigation Proposed**      *None Warranted*

**Residual Significance**      *Less than Significant*

Fire services in the project area are currently provided by CalFire. CalFire has rated the overall fire danger for the property as medium, which is based on several factors: risks to hydroelectric power, soil erodability, water storage facilities, water transportation facilities, timber resources, range resources, air basins involved, historic buildings and landmarks, housing, recreational opportunities, wildlife, infrastructure, fire-flood watershed facilities,

ecosystem sensitivity, and the amount of available fuels, such as dried woods and low-lying shrubs (Placer County 2007).

There is a potential for wildfire to occur during construction if equipment such as a trail dozer or mini excavator generates sparks near vegetation in construction areas. Depending on the equipment required for Park maintenance, equipment-related fire risks could persist. Implementation of the proposed project would also open the project area to the public, and occasional campfires may be allowed within the Park in association with overnight educational or scout camps, which could result in an increase in the potential for wildfires.

Although the project could cause an increase in the potential for wildfires, the potential for wildfire resulting from human or natural causes has previously existed in the project area. Campfires would be allowed only under restricted conditions and would not be allowed outside of the designated campfire pit areas within the facility development zone. The County would consult with CalFire on local fire conditions and would not allow campfires during high fire hazard days. The County would also provide 2 weeks notification to CalFire of any events that would have greater than 30 vehicles and/or between 100 and 200 participants so that the potential fire hazard of the event can be evaluated. CalFire may request cancellation of events if there are high fire risk conditions such as red flag warning days. The project would also include fire suppression facilities, including the construction of an emergency access bridge over Coon Creek, a new helistop on the Spears Ranch portion of the Park for emergency use, a hydrant system, and an emergency water storage system to be used for fire protection. The helistop within the Didion Ranch portion of the Park would be relocated adjacent to the Didion Ranch parking area immediately south of the existing helistop and would continue to provide the same level of emergency access. In addition, the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* will continue to serve as a working guide to reduce the risk of fire in the project area (Placer County 2007). Refer to measures described in Section 13.2.3 above.

Although the project could increase the potential risk of wildfire in the project area, the measures described above would improve CalFire’s ability to respond more quickly to fires and would reduce the severity and size of potential fires. Therefore, the project is not expected to cause a significant increase in the demand for fire services. This impact would be less than significant.

<b>IMPACT</b> 13-4	<b>Public Services and Utilities—Increase in Emergency Response Times.</b> <i>The proposed project may cause an increase in demand for emergency services. However, adequate access to the proposed Park would be provided for emergency vehicles. Therefore, current emergency response times are not expected to increase.</i>
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<b>Significance</b>	<i>Less than Significant</i>
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<b>Mitigation Proposed</b>	<i>None Warranted</i>
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<b>Residual Significance</b>	<i>Less than Significant</i>
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The proposed project may cause an increase in demand for emergency services. However, adequate access to the proposed Park would be provided for emergency vehicles. The project would include a new helistop on the Spears Ranch portion of the Park and a relocated helistop on the Didion Ranch portion of the Park for emergency use. Emergency access bridges would be provided to provide emergency access across Coon Creek. Public access to the Park would be provided via Garden Bar Road, and emergency access would be available from the existing access road/easement from Garden Bar Road to the proposed western parking area. This existing access road would be improved in phases as part of the project. Additional emergency access to portions of the Park would be available via Mears Drive and trails within the Didion Ranch portion of the Park. The County would also provide

2 weeks notification to CalFire of any events that would have greater than 30 vehicles and/or between 100 and 200 participants to allow for improved emergency response, if needed. Also see Impact 8-6, “Potential Interference with Emergency Response Routes,” in Chapter 8.0, “Transportation and Circulation,” for further discussion of emergency access. This impact would be less than significant.

**IMPACT 13-5**      **Public Services and Utilities—Temporary Disruption of Utility Service during Construction.**  
*Implementation of the proposed project could require the relocation of utility poles that are adjacent to Garden Bar Road. Relocation of utility poles could cause temporary disruptions in service.*

**Significance**    *Less than Significant*

**Mitigation Proposed**    *None Warranted*

**Residual Significance**    *Less than Significant*

Aboveground utility poles carrying electricity and telephone/communication lines are located along the length of Garden Bar Road. These utility lines serve the residences along Garden Bar Road and are maintained by PG&E and AT&T. Road improvements to Garden Bar Road could include some areas of widening that would require relocation of adjacent utility poles. Utility poles may need to be relocated outside the footprint of the road improvements. Electrical and/or telephone service could be disrupted during relocation of these poles. Potential disruption of utility services during construction activities would be temporary. In addition, the County would coordinate utility relocation as part of the construction to avoid disruption. Therefore, before road improvements begin, the County would consult with PG&E and AT&T to determine the best course of action to avoid or minimize disruption of electrical and/or telephone service. If disruptions in service cannot be avoided, the utility providers would notify all residences that would be affected. This impact would be less than significant.

**IMPACT 13-6**      **Public Services and Utilities—Increase in Solid Waste and Wastewater Generation.** *Operation of the Park would increase generation of solid waste and wastewater on the Spears Ranch portion of the Park and would increase the demand for solid waste disposal services. However, solid waste and wastewater generated by the project are expected to be minimal. In addition, the County would contract with Auburn Placer Disposal to provide solid waste disposal service to the Park and the on-site sewage disposal system and/or vault system would be designed to accommodate Park use.*

**Significance**    *Less than Significant*

**Mitigation Proposed**    *None Warranted*

**Residual Significance**    *Less than Significant*

The proposed project would increase generation of solid waste and wastewater on the Spears Ranch portion of the Park, which would increase the demand for solid waste and wastewater disposal services to the Spears Ranch portion of the Park. Auburn Placer Disposal service currently provides solid waste disposal service for the Didion Ranch portion of the Park. The County would expand this disposal service to include the Spears Ranch portion of the Park. Solid waste disposal would be provided on a weekly or more frequent basis if needed. Solid waste would be stored on-site in enclosed bear-proof trash receptacles located throughout the Park until the waste can be hauled off-site to the nearest waste disposal facility. Daily use of the project area is not expected to generate a

large amount of solid waste and would not exceed the capacity of any landfills. Large events that would exceed the capacity of the disposal services provided for the Park would be required to provide additional disposal services or pay a fee to cover additional disposal services provided by County staff as a condition of the Temporary Event Permit.

In addition, an on-site sewage disposal system and/or vault toilets would be provided as part of the project. The on-site system and/or vault system would be designed with enough capacity to accommodate daily Park uses, including occasional overnight camping. Large events would be evaluated through the review of the Temporary Event Permit application process to determine if additional portable toilets would be required to accommodate the event. Because the solid waste and wastewater generated by the project would not exceed the capacity of any landfills or on-site systems and large events would be required to provide additional capacity, if needed, this impact would be less than significant.

## **13.4 MITIGATION MEASURES**

No mitigation measures are necessary.

## 14.0 HAZARDOUS MATERIALS AND HAZARDS

This chapter evaluates information about hazardous materials and hazards in the project area. It describes existing characteristics of the area, summarizes pertinent regulations, analyzes the environmental impacts from implementation of the proposed project on hazardous materials and hazards, and provides mitigation measures as needed to reduce those impacts.

### 14.1 ENVIRONMENTAL SETTING

For purposes of this chapter, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in the Code of Federal Regulations (CFR) as “a substance or material that...is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

“Hazardous material” means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

“Hazardous wastes” are defined in California Health and Safety Code Section 25141(b) as wastes that:

... because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness, [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

#### 14.1.1 REGIONAL SETTING

The project area is located along Coon Creek in the Sierra Nevada foothills of Placer County. It is surrounded by undeveloped land dominated by natural vegetation. According to the California Department of Forestry and Fire Protection (CalFire), the overall fire danger in the vicinity of the Park is rated as medium (CalFire 2007).

#### 14.1.2 EXISTING SITE CONDITIONS

There is an existing ranch house within the Spears Ranch portion of the Park; however, it is not currently in use. None of the land in the project area is in agricultural production or in timber resource operations; however, the proposed Park and surrounding area are used for livestock grazing. Historic uses of the project area include mining and prospecting and several remnants of these activities exist within the project area. Heavy metals such as mercury and arsenic were often used in mining operations; however, it is unknown if these contaminants are present within the project area.

Elevations in the project area range from less than 400 feet to more than 1,200 feet above mean sea level. Side slopes are steepest adjacent to the eastern portion of Coon Creek. Geology and geologic hazards in the project area are described in Chapter 5.0, “Soils, Geology, and Seismicity.” Several stock ponds exist within the Spears Ranch portion of the Park that could provide potential habitat for mosquitoes. The project area is served by the Placer Mosquito and Vector Control District (Vector Control District), which serves all of Placer County. The Vector Control District routinely inspects and treats agricultural, industrial, and residential vector sources such as creeks, wetlands, and human-made water features, as needed (Placer Mosquito and Vector Control District 2009).

The U.S. Environmental Protection Agency's (EPA's) Envirofacts database and EnviroMapper was reviewed for the project area. The Envirofacts database contains a variety of environmental information maintained by EPA, such as the locations of releases of more than 650 toxic chemicals. EnviroMapper was used to depict graphically whether EPA maintains any information about the project area in Envirofacts. No records of any toxic releases, hazardous waste, or other violations were found (EPA 2007). A Phase I Site Assessment, Asbestos Building Material and Lead-Based Paint Survey Report, and a Limited Phase II Soil and Domestic Well Water Assessment were also conducted within the Spears Ranch portion of the Park by Kleinfelder, Inc., in 2003 (Trust for Public Lands 2003a, 2003b, 2003c). The Phase I Site Assessment concluded that there were no records of any toxic releases, hazardous waste, or other violations recorded for the Spears Ranch portion of the Park; however, some areas of stained soils were observed on the property and some of the on-site buildings were identified as potentially containing asbestos containing materials (ACMs) and/or lead-based paint (LBP) (Trust for Public Lands 2003b). The Asbestos Building Material and Lead-Based Paint Survey Report identified six samples of painted surfaces that contained LBP exceeding the Housing and Urban Development and EPA criterion for lead and two structures on-site were identified as containing or having the potential to contain ACMs (Trust for Public Lands 2003c).

## **14.2 REGULATORY SETTING**

### **14.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS**

#### **U.S. ENVIRONMENTAL PROTECTION AGENCY**

EPA is the agency primarily responsible for enforcing and implementing federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are contained mainly in CFR Titles 29, 40, and 49. Hazardous materials, as defined in the CFR (see the definitions of terms above), are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws:

- ▶ Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S. Code [USC] 6901 et seq.);
- ▶ Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, also called the Superfund Act) (42 USC 9601 et seq.); and
- ▶ Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499).

These laws and associated regulations include specific requirements for facilities that generate, use, store, treat, and/or dispose of hazardous materials. EPA provides oversight for and supervision of federal Superfund investigation/remediation projects, evaluates remediation technologies, and develops restrictions on disposal of hazardous materials and standards for treatment.

#### **Hazardous Substances**

Hazardous substances are a subclass of hazardous materials. They are regulated under CERCLA and SARA (and the federal Clean Water Act for water resources; see Chapter 11.0, "Hydrology and Water Quality"). Under CERCLA, EPA has authority to seek the parties responsible for releases of hazardous substances and ensure that the responsible parties remediate the site. CERCLA also provides federal funding (the "Superfund") for remediation. SARA Title III, the Emergency Planning and Community Right-to-Know Act, requires companies to declare potential toxic hazards to ensure that local communities can plan for chemical emergencies. EPA maintains a National Priority List of uncontrolled or abandoned hazardous waste sites identified as high priorities for remediation under the Superfund program. EPA also maintains the CERCLIS database, which contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities across the nation.



## **Hazardous Wastes**

Hazardous wastes, although included in the definition of hazardous materials and hazardous substances, are regulated separately under RCRA. A waste can legally be considered hazardous if it is classified as ignitable, corrosive, reactive, or toxic. Title 22, Section 66261.24 of the California Code of Regulations (CCR) (i.e., 22 CCR 66261.24) defines characteristics of toxicity. Under RCRA, EPA regulates hazardous waste from the time that the waste is generated until its final disposal (“cradle to grave”). RCRA also authorizes EPA or a state to inspect individual facilities for compliance with regulations and to pursue enforcement action if a violation is discovered. EPA can delegate its responsibility to a state if the state’s regulations are at least as stringent as the federal ones. RCRA was updated in 1984 by the passage of the federal Hazardous and Solid Waste Amendments, which required phasing out land disposal of hazardous waste.

## **OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION**

The Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor is responsible for enforcing and implementing federal laws and regulations pertaining to worker health and safety. Workers at hazardous waste sites must receive specialized training and medical supervision according to the Hazardous Waste Operations and Emergency Response regulations (29 CFR 1910.120).

## **14.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS**

### **CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY**

The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency, has primary regulatory responsibility over hazardous materials in California. DTSC works in conjunction with the federal EPA to enforce and implement hazardous materials laws and regulations; it can delegate enforcement responsibilities to local jurisdictions.

The hazardous waste management program enforced by DTSC was created by the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in CCR Title 26. The state program thus created is similar to, but more stringent than, the federal program under RCRA. The regulations list materials that may be hazardous and establish criteria for their identification, packaging, and disposal.

Environmental health standards for management of hazardous waste are contained in CCR Title 22, Division 4.5. In addition, as required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the state, called the Cortese List. The project area is not included on this list (DTSC 2007).

California’s Secretary for Environmental Protection has established a unified hazardous waste and hazardous materials management regulatory program (Unified Program) as required by Senate Bill 1082 (1993). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental programs:

- ▶ programs for hazardous waste generators and on-site treatment of hazardous waste;
- ▶ underground storage tank program;
- ▶ hazardous-materials release response plans and inventories;
- ▶ California Accidental Release Prevention Program;
- ▶ Aboveground Petroleum Storage Act requirements for spill prevention, control, and countermeasure plans; and
- ▶ hazardous-material management plans and inventories under the California Uniform Fire Code.

The six environmental programs within the Unified Program are implemented at the local level by local agencies.

## STATE WATER RESOURCES CONTROL BOARD

The State Water Resources Control Board, through its nine regional water quality control boards (RWQCBs), has primary responsibility for protecting water quality and supply. The project area is located within the jurisdiction of the Central Valley RWQCB. See Chapter 11.0, “Hydrology and Water Quality,” for further discussion of the Central Valley RWQCB.

## CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS, DIVISION OF OCCUPATIONAL HEALTH ADMINISTRATION

The California Department of Industrial Relations, Division of Occupational Safety and Health Administration (Cal/OSHA), assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are more stringent than federal OSHA regulations and are presented in CCR Title 8. Standards for workers dealing with hazardous materials include practices for all industries (General Industry Safety Orders); specific practices are described for construction and for hazardous waste operations and emergency response. Cal/OSHA conducts on-site evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

### 14.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

#### PLACER COUNTY GENERAL PLAN

The following are the relevant goals and policies identified by the *Placer County General Plan* (General Plan) (Placer County 1994) for hazardous materials and hazards.

**GOAL 8.C:** To minimize the risk of loss of life, injury, and damage to property and watershed resources resulting from unwanted fires.

- ▶ **Policy 8.C.7.** [Placer] County shall work with local fire protection agencies, the California Department of Forestry and Fire Protection, and the U.S. Forest Service to promote the maintenance of existing fuel breaks and emergency access routes for effective fire suppression.
- ▶ **Policy 8.C.11.** The County shall continue to work cooperatively with the California Department of Forestry and Fire Protection and local fire protection agencies in managing wildland fire hazards.
- ▶ **Policy 8.E.4.** The County shall, through its Office of Emergency Services, maintain the capability to effectively respond to emergency incidents.
- ▶ **Policy 8.E.5.** The County shall maintain an emergency operations center to coordinate emergency response, management, and recovery activities.

**GOAL 8.G:** To minimize the risk of loss of life, injury, serious illness, damage to property, and economic and social dislocations resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous materials wastes.

- ▶ **Policy 8.G.1.** The County shall ensure that the use and disposal of hazardous materials in the County complies with local, state, and federal safety standards.
- ▶ **Policy 8.G.5.** The County shall strictly regulate the storage of hazardous materials and wastes.
- ▶ **Policy 8.G.6.** The County shall require secondary containment and periodic examination for all storage of toxic materials.

- ▶ **Policy 8.G.13.** The County shall work with local fire protection and other agencies to ensure an adequate Countywide response capability to hazardous materials emergencies.

## 14.3 IMPACTS

### 14.3.1 ANALYSIS METHODOLOGY

The environmental analysis for hazardous materials and hazards was based largely on the results of searches of EPA's Envirofacts database and EnviroMapper and DTSC's Hazardous Waste and Substances Site List, as well as field review of the project area. Background information included in the General Plan was also used in this analysis. The effects of the proposed project were compared to environmental baseline conditions (i.e., existing conditions) to determine impacts.

### 14.3.2 THRESHOLDS OF SIGNIFICANCE

#### CEQA THRESHOLDS

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on hazardous materials or hazards if it would:

- ▶ create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- ▶ create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment;
- ▶ emit hazardous emissions or handle hazardous materials within one-quarter mile of an existing or proposed school;
- ▶ be located on a site that is included on a list of hazardous materials sites, and as a result, would create a significant hazard to the public or the environment;
- ▶ impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- ▶ expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

#### ISSUES NOT ANALYZED FURTHER

The proposed project would have no impact associated with the following issues, and these issues will not be analyzed further in this chapter:

- ▶ **Emergency Response/Emergency Evacuation Plans:** The proposed project would not impair implementation of or interfere with an adopted emergency response plan or emergency evacuation plan. As mentioned in Chapter 3.0, "Project Description," and Impact 8-6 in Chapter 8.0, "Transportation and Circulation," proposed roads would provide emergency access to all portions of the project area, including those across Coon Creek.
- ▶ **Emissions or Hazardous Materials within One-Quarter Mile of a School:** There are no schools within 0.25-mile of the project area. As mentioned in Chapter 13.0, "Public Services and Utilities," the closest schools to the project area are located approximately 9 miles to the southwest in Lincoln.

- **Hazardous Materials Sites:** As mentioned above in Section 14.2.2, “State Plans, Policies, Regulations, and Laws,” the project area is not included on DTSC’s Hazardous Waste and Substances Site List for the state (the Cortese List), compiled pursuant to Government Code Section 65962.5. As a result, construction and use of the project area would not create a significant hazard to the public or the environment.

### 14.3.3 IMPACT ANALYSIS

**IMPACT**      **Hazardous Materials and Hazards—Potential for Fire to Occur during or after Construction.** *The*  
**14-1**      *potential exists for wildfire to occur during or after project construction. However, as part of the project,*  
                  *the County would implement management actions and fire response facilities that would reduce the risk*  
                  *of wildfire.*

**Significance**      *Less than Significant*

**Mitigation**      *None Warranted*  
**Proposed**

**Residual**      *Less than Significant*  
**Significance**

Fire services in the project area are currently provided by CalFire. CalFire has rated the overall fire danger for the property as medium, which is based on several factors: risks to hydroelectric power, soil erodability, water storage facilities, water transportation facilities, timber resources, range resources, air basins involved, historic buildings and landmarks, housing, recreational opportunities, wildlife, infrastructure, fire-flood watershed facilities, ecosystem sensitivity, and the amount of available fuels, such as dried woods and low-lying shrubs (Placer County 2007).

There is a potential for wildfire to occur during construction if equipment such as a trail dozer or mini excavator generates sparks near vegetation in construction areas. Depending on the equipment required for Park maintenance, equipment-related fire risks could persist. Implementation of the proposed project would also open the project area to the public, and occasional campfires may be allowed within the Park in association with overnight educational or scout camps, which could result in an increase in the potential for wildfires.

Although the project could cause an increase in the potential for wildfires, the potential for wildfire resulting from human or natural causes has previously existed in the project area. Campfires would be allowed only under restricted conditions and would not be allowed outside of the designated campfire pit areas. In addition, the project would include fire suppression facilities, including the construction of an emergency access bridge over Coon Creek, a new helistop on the Spears Ranch portion of the Park for emergency use, a hydrant system, and an emergency water storage system for fire protection. The helistop adjacent the Didion Ranch parking area would also be relocated immediately south of the existing helistop and would continue to provide the same level of emergency access. The County would also consult with CalFire on local fire conditions and would not allow campfires during high fire hazard days. The County would also implement recommendations included in the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* to reduce the risk of fire in the project area (Placer County 2007). These measures are described in Section 13.2.3, in Chapter 13.0, “Public Services and Utilities”.

Although the project could increase the potential risk of wildfire in the project area, the measures described above would improve CalFire’s ability to respond more quickly to fires and would reduce the severity and size of potential fires. Therefore, this impact would be less than significant.

**IMPACT 14-2**      **Hazardous Materials and Hazards—Potential for Release of Hazardous Materials during Construction or Operation.** *Park construction and maintenance equipment may use small amounts of hazardous materials. The proposed project would comply with all applicable federal and state regulations pertaining to handling of hazardous materials and worker health and safety; however, accidental spills or other releases of small amounts of hazardous materials could occur during construction or operation of the Park.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 14-1: Implement Measures to Reduce Hazards Associated with Potential Releases of Hazardous Materials; and Mitigation Measure 5-1 in Chapter 5.0, “Soils, Geology, and Seismicity”: Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required*

**Residual Significance**      *Less than Significant*

Construction of the proposed project would involve the use of a Sweco trail dozer, a mini excavator, and/or other machinery capable of conforming to the dimensional requirements of the trail system. In addition, other larger mechanized equipment (e.g., tractors, graders) would be used for construction of parking areas, bridges, road improvements along Garden Bar Road, and other recreational facilities. For long-term maintenance of the Park, construction equipment and localized hand spraying of herbicide along the trail would be required to prevent vegetation from overgrowing the trails. Herbicides would be applied by County staff members certified in herbicide/pesticide application. Construction and maintenance equipment may use small amounts of hazardous materials, including gasoline, diesel fuel, engine oil, and hydraulic fluids. Accidental spills of construction-related contaminants could occur during construction, resulting in contamination of surface soils. As described in Impact 11-1, “Potential for Short-Term, Construction-Related Soil Erosion and Impairment of Water Quality,” in Chapter 11.0, “Hydrology and Water Quality,” discharges of these contaminants to receiving waters during storm events could degrade water quality.

Operation of mechanized equipment during trail construction and maintenance, including spraying of herbicides, would proceed in compliance with applicable federal and state regulations pertaining to handling of hazardous materials and worker health and safety. Compliance with these regulations would protect workers from health hazards associated with routine exposure to hazardous materials and would minimize the potential for accidental spills and resultant hazards to people, animals, or plants in the area. Hazardous materials used for ongoing maintenance within the Park would also be stored in accordance with applicable federal and state regulations pertaining to storage of hazardous materials.

The project area is located in an undeveloped area that lacks existing sources of hazardous materials, and the purpose of the project is specifically for recreation in an unspoiled environment. An accidental spill or other release of even a small amount of a hazardous material in this area during project construction or maintenance could have a substantial effect on the quality of the natural environment. Therefore, this impact would be potentially significant.

Implementation of Mitigation Measures 14-1 and 5-1 would reduce this impact to a less-than-significant level.

**IMPACT 14-3**      **Hazardous Materials and Hazards—Potential for a Public Safety Hazard from Hunting Activities.**  
*Activities allowed in the Park would include hunting to control damage to the Park, especially wild pigs and hunting of legal game. Hunting activities could conflict with other recreational activities occurring in the Park. However, measures would be implemented to protect the visiting public and surrounding residents from hunting activities.*

**Significance**      *Less than Significant*

**Mitigation Proposed**      *None Warranted*

**Residual Significance**      *Less than Significant*

Up to four days of hunting of legal game would be allowed in the Park during two, 2-day seasons per year with up to 10 hunting permits being issued per season. Each season would be a maximum of 2 days, for a total of 4 open hunting days per year. Deprivation permits to control nuisance species (e.g. feral pigs) that cause damage to vegetation within the Park may also be obtained under California Department of Fish and Game (DFG) regulations. Because other recreation activities (e.g., hiking, biking, picnicking) would be allowed and encouraged in the Park, the potential for conflict with hunting activities exists. Therefore, hunting would only take place during times of Park closure to eliminate conflicts with other recreation activities. In addition, hunting would not be allowed within 0.5-mile of any neighboring residences. Hunting would be regulated by the County reservation system and DFG officials.

Because hunting would not be allowed when the Park is open to the public and would not take place near any residences, which would protect the public from hazards associated with hunting activities, this impact would be less than significant.

**IMPACT 14-4**      **Hazardous Materials and Hazards—Potential Exposure of People to Hazardous Materials.**  
*Although there have been no recorded releases of toxic materials in the project area, the Asbestos Building Material and Lead-Based Paint Survey Report concluded that several on-site buildings likely contain ACMs and LBP. In addition, several remnant mining or prospecting resources are located on-site that could contain hazardous materials.*

**Significance**      *Potentially Significant*

**Mitigation Proposed**      *Mitigation Measure 14-2: Prepare and Implement a Safety Hazard Plan and Conduct Soil Sampling*

**Residual Significance**      *Less than Significant*

Although there are no recorded releases of toxic materials within the project area, the Asbestos Building Material and Lead-Based Paint Survey Report concluded that several existing on-site buildings could contain ACMs and LBP (Trust for Public Lands 2003b); therefore, renovation or demolition of on-site buildings could expose workers to ACMs and LBP. Exposure of workers to these materials could pose a potential health hazard. Therefore, this impact would be potentially significant.

In addition, several mining- and/or prospecting-related resources were identified within the Spears Ranch portion of the Park during the cultural resources inventory (see Chapter 6.0, “Cultural Resources”). Mining-related

resources could contain hazardous materials (i.e., heavy metals) that were commonly used in mining operations; however, it is unlikely that prospecting-related resources contain any hazardous materials. Because it is unknown if these resources are mining-related or prospecting-related, there is the potential that they could contain hazardous materials. If any of these resources are in close proximity to a project facility, the affected resources would be removed during construction. Because these resources would either be removed during construction or would not be located near any Park facilities that are being accessed by Park users, this would not pose a hazard to the public. However, these features may be disturbed during construction, and construction workers could be exposed to hazardous materials. Therefore, this impact would be potentially significant.

Because workers could be exposed to heavy metals, ACMs, and/or LBP, this impact would be potentially significant. Implementation of Mitigation Measure 14-2 would reduce this impact to a less-than-significant level.

<b>IMPACT</b> 14-5	<b>Hazardous Materials and Hazards—Increased Risk of Health Hazard from Vector-borne Diseases.</b> <i>There are existing stock ponds on the Spears Ranch portion of the Park and several new fishing ponds could be constructed as part of the project. These ponds could serve as potential habitat for mosquitoes. The project would also increase the number of people in an area that could contain several mosquito-breeding sites and therefore would increase the number of people potentially exposed to vector-borne diseases carried by mosquitoes. However, the County would coordinate with the Vector Control District to ensure these sites are not a hazard to the public.</i>
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Significance	<i>Less than Significant</i>
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Mitigation Proposed	<i>None Warranted</i>
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Residual Significance	<i>Less than Significant</i>
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Several stock ponds currently exist within the Spears Ranch portion of the Park. The proposed project could include construction of new fishing ponds developed in conjunction with the fuel load reduction and/or grazing plans. These ponds could provide potential habitat for mosquitoes that can pose a health hazard to the public. The project would also increase the number of people in an area that could contain several mosquito-breeding sites and therefore would increase the number of people potentially exposed to vector-borne diseases carried by mosquitoes. However, this condition would be alleviated by close coordination with the Vector Control District to ensure routine monitoring and treatment of potential vector sources in the project area. If favorable conditions for vectors are found in the project area measures would be taken to reduce the potential sources for vectors. Measures would include actions such as, use of larvacides, stocking ponds with mosquito fish, and managing water levels and aquatic vegetation to discourage mosquito breeding. Larvacides used by the Vector Control District are the safest and least toxic materials available for public health and would not affect aquatic invertebrates or non-target insects.

Close coordination with the Vector Control District to monitor the project area and implementation of measures as necessary to reduce vector sources would reduce this impact to a less-than-significant level.

## 14.4 MITIGATION MEASURES

**Mitigation Measure 14-1: Implement Measures to Reduce Hazards Associated with Potential Releases of Hazardous Materials.**

*Mitigation Measure 14-1 applies to Impact 14-2.*

The County shall ensure that the following measures are implemented before project construction begins:

- ▶ The County or the County's contractor shall prepare and implement an accidental-spill prevention and response plan for storage and use of hazardous materials during trail construction and maintenance. This plan shall identify measures to prevent accidental spills from leaving the area and methods for responding to and cleaning up spills before neighboring properties are exposed to hazardous materials.
- ▶ The County shall ensure that any employee handling hazardous materials is trained in the safe handling and storage of hazardous materials and is trained to follow all applicable regulations with regard to such hazardous materials.
- ▶ The primary construction contractor shall identify a staging area where hazardous materials will be stored during construction, in accordance with applicable state and federal regulations.

Implementation of this mitigation measure and Mitigation Measure 5-1, "Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required," in Chapter 5.0, "Soils, Geology, and Seismicity," would reduce Impact 14-2 to a less-than-significant level.

#### **Mitigation Measure 14-2: Prepare and Implement a Safety Hazard Plan and Conduct Soil Sampling.**

*Mitigation 14-2 applies to Impact 14-4.*

To avoid health risks to construction workers, Placer County shall require the contractor to prepare and implement a site health and safety plan if areas containing hazardous materials are to be disturbed. This plan will outline measures that will be employed to protect construction workers and the public from exposure to hazardous materials during remediation, demolition, and construction activities. The County shall consult with the contractor to determine the measures to be employed at the site, which could include posting notices, limiting access to the site, monitoring the air quality, watering, and installation of wind fences. Contractors shall be required to comply with state health and safety standards for all demolition work, including compliance with OSHA and Cal/OSHA requirements regarding exposure to ACMs and LBP.

For any prospecting or mining resources (Abandoned Mine Lands) that are in close proximity to a project facility, a Phase 2 Limited Soil Sampling (soil sampling) shall be conducted to determine if there are any hazardous materials present on-site. The soil sampling of the tailings shall be conducted during the entitlement process (i.e. conditional use permit). Soil sampling will determine the California Human Health Screening Levels (CHHSL) of the testing protocol (CAM 17 metals, a list of 17 metals found typically in hazardous materials and mining sites). The CHHSLs are a list of 54 hazardous chemicals in soil or soil gas that the California Environmental Protection Agency (CalEPA) considers to be below thresholds for risks to human health.

The soil sampling results shall be reviewed by Placer County Environmental Health Services. If the soil sampling results are above the CHHSLs, then Placer County Environmental Health Services would refer the project to the DTSC. DTSC requires the project proponent to enter their Voluntary Cleanup Agreement (VCA) program. The VCA typically requires more soil testing to determine the scope of the contamination area. Furthermore, DTSC may require a Preliminary Endangerment Assessment (PEA) and/or a removal action workplan (RAW). The PEA is used to discuss the health risks associated with hazardous materials site releases and the RAW is used to specifically detail the areas of the project area to have soil removed and the contaminated soils disposal at an appropriate solid waste facility. Following soils removal, DTSC issues a "No Further Action" letter indicating that the project site is safe.

In addition, the contractor shall prepare and implement a site plan that identifies necessary remediation activities appropriate for proposed land uses, including excavation and removal of on-site contaminated soils, and redistribution of clean fill material within the project area. The plan shall include measures that ensure the safe



transport, use, and disposal of contaminated soil and building debris removed from the project area. In the event that contaminated groundwater is encountered during site excavation activities, the contractor shall report the contamination to appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The contractor shall be required to comply with the plan and with applicable local, state, and federal laws.

Implementation of this mitigation measure would reduce Impact 14-4 to a less-than-significant level.

## 15.0 OTHER CEQA-REQUIRED SECTIONS

### 15.1 ALTERNATIVES

This chapter provides a description of alternatives to the proposed project, including alternatives that were considered and eliminated from further consideration. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the basic project objectives, are infeasible, or do not avoid any significant environmental effects (State CEQA Guidelines Section 15126.6[c]). Lead agencies are guided by the general definition of feasibility found in CEQA: “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” (State CEQA Guidelines Section 15364). Based on these guidelines, one alternative has been eliminated from further consideration. This alternative is briefly described below.

This chapter also provides a comparative analysis of four alternatives—the No Project Alternative, the Single-Track Trails Alternative, the Dispersed Recreation Alternative, and the Reduced Access Alternative—pursuant to Section 15126.6 of the State CEQA Guidelines. These alternatives are examined at a lesser level of detail than the analysis of the proposed project in Chapters 4.0 through 14.0 of this EIR (State CEQA Guidelines Section 15126.6[d]). The purpose of this chapter is to provide decision-makers with an assessment of the comparative effects of the project alternatives, focusing on the significant impacts and on mitigation of such impacts. An “environmentally superior” alternative is identified pursuant to Section 15126.6(e)(2) of the State CEQA Guidelines.

#### 15.1.1 ALTERNATIVES CONSIDERED AND ELIMINATED FROM DETAILED ANALYSIS

The Burnett Road Access Alternative, as well as alternative locations for the Park, was considered in the planning stages of the proposed project; however, because these alternatives were determined to be infeasible, they are not considered further in this EIR.

Under the Burnett Road Access Alternative, access would have been provided to the Park via Burnett Road, which is south of the Park. All project facilities would have been the same under this alternative as under the proposed project, and Garden Bar Road would have continued to be used for maintenance and emergency access only. Under this alternative, Burnett Road would have been extended through private property and paved. This alternative would have had more severe impacts on soils, geology, and seismicity; hydrology and water quality; biological resources; air quality; and noise than the proposed project because of the additional construction associated with building a new road. In addition, the owner(s) whose property would have been affected by extension of Burnett Road were not willing to sell all or a portion of this property or to allow for an access easement. In the case of extending Burnett Road, there were not willing sellers, which made this alternative infeasible in keeping with the Placer Legacy Program’s goal of only pursuing willing seller acquisitions.

In addition to the Burnett Road Alternative, other alternative locations were considered for the proposed Park. Criteria used for choosing a location for the proposed project included goals of the Placer Legacy Program and objectives of the project. A goal of the Placer Legacy Program is to conserve natural features for outdoor recreation in Placer County. To be consistent with this goal, properties outside of Placer County were eliminated from further consideration. The Placer Legacy Program also requires that properties purchased under this program have a willing seller, which eliminated consideration of properties without a willing seller. The Spears Ranch location was also chosen for its contiguous size and habitat value including blue oak woodland and riparian areas along Coon and Deadman Creeks.

## **15.1.2 ALTERNATIVES SELECTED FOR MORE DETAILED ANALYSIS**

In accordance with Section 15126(f) and Section 15126.6 of the State CEQA Guidelines, this EIR includes an analysis of three project alternatives, as well as the required review of the No Project Alternative.

State CEQA Guidelines Section 15126.6(a) calls for an evaluation of "... a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Section 15126.6(f) specifies that the range of alternatives is governed by the "rule of reason," requiring evaluation of only those alternatives "necessary to permit a reasoned choice." Alternatives shall be "limited to ones that avoid or substantially lessen any of the significant effects" of the proposed project.

Section 15126.6(e) of the State CEQA Guidelines requires that, among other alternatives, a "no project" alternative be evaluated in comparison to the proposed project. It states that the purpose of the "no project" alternative is to "allow decision-makers to compare the impacts of approving the proposed project with the impact of not approving the proposed project." It also states that the "no project" analysis shall "discuss the existing conditions..., as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved..." Accordingly, this section provides an analysis of the "no project" alternative.

The environmentally superior alternative is also identified, as required by the State CEQA Guidelines. Section 15126(e)(2) states that "[i]f the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

### **NO PROJECT ALTERNATIVE (ALTERNATIVE 1)**

The No Project Alternative assumes that the proposed natural-surface trails and related recreational amenities would not be constructed and that the Spears Ranch portion of the Park would not be open to the public. The surrounding area would continue to be grazed and access would be limited to County maintenance staff and emergency vehicles. The Spears Ranch portion of the Park would be managed by the County without public access, and the Didion Ranch portion of the Park would be managed by the County and would remain open to the public.

This alternative would not meet the demands for recreational opportunities within Placer County, specifically hiking, biking, and equestrian trails, and would not meet the goals of the Placer Legacy Program for which the property was purchased. Because no trails or related facilities would be constructed under this alternative, the impacts associated with the proposed project on biological resources; cultural resources; transportation and circulation; air quality; noise; soils, geology, and seismicity; hydrology and water quality; public services and utilities; visual resources, and hazardous materials and hazards would not occur. Because the proposed project would have little to no impact on land use and agriculture; population, employment, and housing; and mineral resources, impacts on these resources under the No Project Alternative would be similar to those under the proposed project. This alternative would not have the beneficial effects on recreation compared to the proposed project.

### **SINGLE-TRACK TRAILS ALTERNATIVE (ALTERNATIVE 2)**

Under the Single-Track Trails Alternative, the proposed natural-surface trails and related recreational amenities would be constructed as described for the proposed project; however, the trails would be designed as hiking trails, not multiple-use trails. There would be no equestrian facilities (e.g., water troughs, tie rails) within the Spears Ranch portion of the property, and the parking areas constructed on the Spears Ranch portion of the property would be smaller and would not include larger parking spaces or an overflow gravel area for trucks and trailers. Automobile access would be provided via Garden Bar Road and Mears Drive; however, Garden Bar Road would not be used for horse trailer access. Large events requiring multiple buses for transportation would not be allowed

under this alternative; however, class-room sized groups would be allowed under this alternative at the discretion of the County. The existing trails and parking areas on the Didion Ranch portion of the Park would continue to be multiple-use. Improvements would be made to Garden Bar Road to allow access by automobiles; however, no additional road improvements would be made to accommodate horse trailers. Garden Bar Road would continue to be used by County staff for maintenance and for emergency vehicle access. Impacts of the Single-Track Trails Alternative are described below by resource topic.

## **Land Use and Agricultural Resources**

The Single-Track Trails Alternative would be consistent with the *Placer County General Plan* (General Plan) and the Placer County Zoning Ordinance. This alternative would not divide an established community, nor would it affect timber resources or operations. Grazing would be allowed to continue on the property, but no other agricultural uses would be allowed. This alternative would not interfere with surrounding land uses. This alternative would also be consistent with the *Draft Placer County Conservation Plan: Western Placer County*. Because the Single-Track Trails Alternative would not conflict with any land use plans in the project area and grazing would be allowed to continue, it would have a less-than-significant impact on land use, planning, and agricultural resources. The impacts of the Single-Track Trails Alternative on land use, planning, and agricultural resources would be similar to those of the proposed project.

## **Population, Employment, and Housing**

The Single-Track Trails Alternative would not involve construction of new homes or businesses. This alternative would not displace any existing housing, nor would it result in disruption or division of an established community. The proposed trails and facilities would be constructed primarily with mechanized construction techniques and only one permanent job would be created by this alternative. Therefore, construction and operation of this alternative would require few workers and would have very little effect on the local workforce. This alternative would have no effect on population, employment, or housing. The impacts of the Single-Track Trails Alternative on population, employment, and housing would be similar to those of the proposed project.

## **Biological Resources**

With implementation of mitigation, the Single-Track Trails Alternative would not substantially affect any threatened or endangered species. This alternative would have minor effects on Coon Creek, Deadman Creek, and other unnamed drainages within the Park. The Single-Track Trails Alternative would require the removal of vegetation, including some trees. This alternative would have less potential than the proposed project to introduce invasive weeds because horses would not introduce them under this alternative; however, invasive weeds currently exist throughout much of the Park. Because this alternative would not include additional improvements along Garden Bar Road to accommodate horse trailers, there would be less of an impact on biological resources, including less tree removal, along Garden Bar Road than under the proposed project. In addition, less vegetation would be removed for larger parking areas and trails because the single-track trails would be narrower than the multiple-use trails and the parking areas would not accommodate horse trailers. This alternative would include mitigation to reduce impacts on special-status species, oak woodlands, and waters of the United States. For these reasons, the impacts of the Single-Track Trails Alternative on biological resources would be less than those associated with the proposed project.

## **Cultural Resources**

Nine potentially significant cultural resources and one significant cultural resource are located within the Spears Ranch portion of the Park. The Single-Track Trails Alternative would include mitigation measures to reduce impacts on known and yet-to-be-discovered cultural resources. With implementation of these mitigation measures, this alternative would have a less-than-significant impact on cultural resources. The impacts of the Single-Track Trails Alternative on cultural resources would be similar to those of the proposed project.

## Visual Resources

The Single-Track Trails Alternative would introduce new physical elements into the landscape; however, views of the trail system and recreational facilities from off-site locations would be limited. There would be changes to the visual character of Garden Bar Road under this alternative; however, the changes would be less substantial than those under the proposed project because additional widening to accommodate horse trailers would not be needed. Construction of the project facilities under this alternative would minimize the removal of trees greater than 6 inches in diameter at breast height (dbh), thus minimizing visible canopy reduction, and would incorporate the use of natural colors and materials into Park facilities to be consistent with the natural character of the Park. In addition, less vegetation would be removed for trails and parking areas than under the proposed project, and Park facilities would be of a smaller scale. New security lighting similar to that used under the proposed project and used by previous residents would be included as part of this alternative. The Single-Track Trails Alternative would not affect any scenic vistas. Although this alternative would have less of an impact on visual resources than the proposed project, it would still result in a significant and unavoidable visual impact.

## Transportation and Circulation

Construction of trails and recreational facilities under the Single-Track Trails Alternative would temporarily increase traffic on Garden Bar Road and Mears Drive during construction. Maintenance traffic on Garden Bar Road would increase slightly after the Spears Ranch portion of the Park was opened to the public. Automobile traffic associated with operation of the Park would also increase on both Garden Bar Road and Mears Drive; however, horse trailer and bus traffic on Garden Bar Road would not increase under this alternative. With implementation of road improvements described in the *Traffic Safety Study for Garden Bar Road* (Placer County 2007a) (Appendix C), traffic hazards on Garden Bar Road would be reduced to a less-than-significant level. Increases in traffic on Garden Bar Road under this alternative would be less than under the proposed project; however, neither alternative would result in the exceedance of a level of service (LOS) standard on any roadways in the project vicinity. The County would also pay a traffic impact fee to further reduce the impact of this alternative on area roadways. Adequate parking would be provided for Park users under this alternative with construction of the western parking area and expansion of the Didion Ranch parking area. Therefore, the Single-Track Trails Alternative would have a less-than-significant impact on transportation and circulation. For these reasons, the impacts of the Single-Track Trails Alternative on transportation and circulation would be slightly less than those of the proposed project.

## Air Quality

Construction of trails and recreational facilities under the Single-Track Trails Alternative would temporarily increase concentrations of reactive organic gases (ROG), oxides of nitrogen (NO<sub>x</sub>), and respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM<sub>10</sub>) in the project area. Construction under this alternative would also have the potential to temporarily increase the amount of diesel exhaust and fuel vapors in the project area. In addition, long-term operation (use and maintenance) of the Park as part of this alternative would cause an increase in ROG, NO<sub>x</sub>, or PM<sub>10</sub>. There is a slight possibility that ground-disturbing activities under this alternative would also expose areas containing asbestos. Mitigation would be included to address this issue, as necessary. However, this alternative would include fewer construction-related emissions associated with improvements to Garden Bar Road, larger parking areas, and wider trails. The Single-Track Trails Alternative would have a less-than-significant impact on air quality with implementation of mitigation. For these reasons, the impacts of the Single-Track Trails Alternative on air quality would be slightly less than those of the proposed project.

## Noise

Construction of trails and recreational facilities under the Single-Track Trails Alternative would temporarily increase noise levels in the project area. Construction activities associated with this alternative would comply with

the requirements of the Placer County Noise Ordinance. The closest noise-sensitive receptors are approximately 800 feet away. There would be less construction-related noise impacts from construction of additional improvements along Garden Bar Road, larger parking areas, and wider trails under this alternative than under the proposed project. Long-term operation (use and maintenance) of the Park under the Single-Track Trails Alternative would result in noise impacts similar to the proposed project and would not cause a significant increase in noise levels in the project area. Therefore, this alternative would have a less-than-significant impact on noise levels in the project area. For these reasons, the Single-Track Trails Alternative would have slightly less of an impact than the proposed project on noise levels.

## **Soils, Geology, and Seismicity**

Construction of recreational facilities under the Single-Track Trails Alternative would require some removal of vegetation and would result in soil disturbance and minor alterations to surface topography, which could result in erosion. However, this alternative would involve less removal of vegetation and a lesser amount of earthmoving activity for additional improvements to Garden Bar Road, larger parking areas, and wider trails. This alternative would include renovation of existing buildings on-site for human occupancy or use as a nature center, construction of bunkhouses, and construction of bridges that could be subject to ground shaking, liquefaction, and landslides. However, the project area is not located within an earthquake fault zone, and no structures for human occupancy would be placed across any fault traces. The County would obtain authorization for construction and operation activities from the Central Valley RWQCB and implement erosion and sediment control measures obtain to reduce impacts on geology, soils, and seismicity to a less-than-significant level. In addition, the Single-Track Trails Alternative would cause less long-term erosion along the trails associated with horses and mountain bikes. Impacts of this alternative on soils, geology, and seismicity would be less than significant. For these reasons, the Single-Track Trails Alternative would have slightly less of an impact on soils, geology, and seismicity than the proposed project.

## **Mineral Resources**

The Single-Track Trails Alternative would not result in the loss of any known mineral resources, nor would it impede or interfere with the establishment or continuation of existing mineral extraction operations. It would not result in the loss of available known mineral resources of value to the region or residents of the state, and the area is not delineated as a locally important recovery site. The Single-Track Trails Alternative would not have an impact on mineral resources; therefore, the impacts of this alternative on mineral resources would be similar to those of the proposed project.

## **Hydrology and Water Quality**

Implementation of the Single-Track Trails Alternative would include construction of up to two groundwater wells and septic system that could affect groundwater. Potential erosion from vegetation removal and construction could also affect water quality in the project area; however, this alternative would not include removal of vegetation and earthmoving activities for additional improvements to Garden Bar Road, larger parking areas, and wider trails. This alternative would comply with policies pertaining to water quality in the General Plan and would implement best management practices (BMPs). This alternative would also cause less long-term erosion along the trails associated with horses and mountain bikes. A grading and drainage plan would be prepared and implemented and the County would obtain a Transient Non-community Water System Permit to reduce these impacts to a less-than-significant level. Therefore, the Single-Track Trails Alternative would have a less-than-significant impact on water quality and hydrology in the project area. For these reasons, the Single-Track Trails Alternative would have slightly less of an impact on hydrology and water quality than the proposed project.

## **Recreation**

The Single-Track Trails Alternative would provide new recreational opportunities in response to existing demand for more recreational opportunities in Placer County. However, because this alternative would not accommodate

equestrians and mountain bikes within the Spears Ranch portion of the Park, it would provide additional recreational opportunities only for hikers, which would result in substantially less benefit than the proposed project. This alternative would not increase the demand for parks or facilities, nor would it negatively affect existing recreational opportunities. The Single-Track Trails Alternative would have a beneficial impact on recreation, but it would provide substantially less of a benefit than the proposed project.

## **Public Services and Utilities**

Implementation of the Single-Track Trails Alternative would not result in the need for a substantial increase in fire protection, police protection, schools, or other public facilities. The public services currently provided to the project area would be sufficient to accommodate use of the Park under this alternative. The Single-Track Trails Alternative would have components that would require electricity and communication, wastewater treatment, septic, and water supply systems. A septic system would be constructed under this alternative as under the proposed project. Under this alternative solid waste would be collected and disposed of by Auburn Placer Disposal Service. Because this alternative would not increase demand for public services and adequate services and utilities would be provided to accommodate Park users, the Single-Track Trails Alternative would have a less-than-significant impact on public services and utilities. The impacts of the Single-Track Trails Alternative on public services and utilities would be similar to those of the proposed project.

## **Hazardous Materials and Hazards**

The Single-Track Trails Alternative would be located in an area of medium fire danger, as rated by the California Department of Forestry and Fire Protection (CalFire) (2007). There is the potential for fire to be caused by construction equipment or by Park users after construction (e.g., from discarded cigarette butts or campfires). The potential also exists for small amounts of hazardous materials to be released from construction equipment or during maintenance of the Park under this alternative. In addition, there is the potential for the public and/or construction workers to be exposed to hazardous materials and vector-borne diseases under this alternative. Because there would be less construction required under this Alternative, there would be fewer potential hazards related to construction compared to the proposed project. The Single-Track Trails Alternative would be constructed and operated consistent with the *Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan* (Placer County 2007b), and an accidental-spill prevention and response plan would be developed to reduce these impacts. The County would also coordinate with the Placer Mosquito and Vector Control District (Vector Control District), create a safety hazard plan, and conduct soil sampling as necessary to reduce these impacts. Because these measures would be taken, this alternative would have a less-than-significant impact on hazards and hazardous materials. For these reasons, the impacts of the Single-Track Trails Alternative on hazards and hazardous materials would be slightly less than those of the proposed project.

## **DISPERSED RECREATION ALTERNATIVE (ALTERNATIVE 3)**

Under the Dispersed Recreation Alternative no recreational facilities would be constructed in the Spears Ranch portion of the Park, but the entire Park would be open to the public. The Park would be multiple-use under this alternative with hiking, biking, and equestrian uses allowed, but recreation would be dispersed throughout the Park and would not be limited to designated trails and recreational facilities. Under this alternative a gravel parking area would be provided in the Spears Ranch portion of the Park and the paved parking area would be expanded on the Didion Ranch portion of the Park. No motorized access would be provided beyond designated parking areas. Access to the Park for automobiles and horse trailers would be provided via Garden Bar Road and Mears Drive and associated road improvements would be implemented along Garden Bar Road.

## **Land Use and Agricultural Resources**

The Dispersed Recreation Alternative would be consistent with the General Plan and the Placer County Zoning Ordinance. This alternative would not divide an established community, nor would it affect timber resources or

operations. Grazing on the property would be allowed to continue, and the property is not currently used for any other agricultural uses. This alternative would not interfere with any surrounding land uses. This alternative would also be consistent with the *Draft Placer County Conservation Plan: Western Placer County*. Because the Dispersed Recreation Alternative would not conflict with any land use plans in the project area and grazing would be allowed to continue on the property, it would have a less-than-significant impact on land use, planning, and agricultural resources. The impacts of the Dispersed Recreation Alternative on land use, planning, and agricultural resources would be similar to those of the proposed project.

## **Population, Employment, and Housing**

The Dispersed Recreation Alternative would not involve construction of new homes or businesses. This alternative would not displace any existing housing, nor would it result in the disruption or division of an established community. No recreational facilities would be constructed as part of this alternative, and no new permanent jobs would be created. Therefore, this alternative would require fewer workers than the proposed project and would have no effect on the local workforce. This alternative would have no effect on population, employment, or housing. The impacts of the Dispersed Recreation Alternative on population, employment, and housing would be similar to those of the proposed project.

## **Biological Resources**

With implementation of mitigation, the Dispersed Recreation Alternative would not substantially affect any threatened or endangered species. This alternative would have minor effects on Coon Creek, Deadman Creek, and other unnamed drainages within the Park. The Dispersed Recreation Alternative may require removal of a few large trees at the parking areas and would have the potential to introduce invasive weeds. The potential for introducing invasive weeds would be higher under this alternative than under the proposed project because horses and trail users would access a larger area of the Park and would not be limited to trail corridors. However, invasive weeds currently exist throughout much of the Park. The biological impacts related to trail construction would be avoided under this alternative; however, there would be more dispersed impacts on biological resources because there would be no formal trails for Park users to follow. As a result, a considerable number of informal, volunteer trails could be created by Park users. Such trails would be uncontrolled and could encroach into sensitive areas. In addition, similar to the proposed project, this alternative would include impacts on trees and drainages from improvements to Garden Bar Road to accommodate additional automobiles and horse trailers. This alternative would include mitigation to reduce impacts on special-status species, oak woodland, and waters of the United States; however, it would be more difficult to mitigate effects under this alternative because of the dispersed nature of the impacts. For these reasons, the impacts of the Dispersed Recreation Alternative on biological resources would be greater than those of the proposed project.

## **Cultural Resources**

There are nine potentially significant cultural resources and one significant cultural resource within the Spears Ranch portion of the Park. The Dispersed Recreation Alternative would include mitigation measures to reduce impacts on known and yet-to-be-discovered cultural resources. Implementation of mitigation measures would reduce impacts on yet-to-discovered cultural resources; however, impacts on known cultural resources would be greater under this alternative because Park users would access more of the Park and may come into contact with cultural resources more frequently. For these reasons, the impacts of the Dispersed Recreation Alternative on cultural resources would be greater than those of the proposed project.

## **Visual Resources**

The Dispersed Recreation Alternative would not introduce new facilities into the landscape. This alternative would also avoid removing trees more than 6 inches dbh to the extent possible, thus minimizing visible canopy reduction. New security lighting similar to that used under the proposed project and similar to lighting used by previous residents would be included under this alternative. Improvements would result in temporary and



permanent changes to the visual character of Garden Bar Road similar to the proposed project. These changes would alter the visual character of the road. Although the Dispersed Recreation Alternative would not affect any scenic vistas, this alternative would have a significant impact on the visual character of Garden Bar Road. Revegetating and restoring disturbed areas to minimize visual quality and protecting oak woodlands would reduce the visual impact, but not to a less-than-significant level. Therefore, the Dispersed Recreation Alternative would have a significant and unavoidable visual impact. For these reasons, the impacts of the Dispersed Recreation Alternative on visual resources would be similar to those of the proposed project would be less than significant.

## **Transportation and Circulation**

The Dispersed Recreation Alternative would not include traffic associated with construction of recreational facilities, but it would include construction traffic related to Garden Bar Road improvements and the Didion Ranch parking area expansion. This alternative would cause an increase in traffic on Garden Bar Road and Mears Drive as a result of operation of the Park; however, because no formal facilities would be provided in the Spears Ranch portion of the Park, this alternative is expected to generate less demand and less traffic than the proposed project. Road improvements described in the *Traffic Safety Study for Garden Bar Road* (Placer County 2007a) (Appendix C) would be constructed under this alternative. A gravel parking area would be provided for Park users under this alternative, but paved parking would not be provided in the Spears Ranch portion of the Park. For these reasons, the impacts of the Dispersed Recreation Alternative on transportation and circulation would be slightly less than those of the proposed project.

## **Air Quality**

The Dispersed Recreation Alternative would include improvements to Garden Bar Road but not construction of recreational facilities within the Park. Therefore, this alternative would temporarily increase concentrations of ROG, NO<sub>x</sub>, PM<sub>10</sub>, diesel exhaust, and fuel vapors in the project area, but construction-related emissions would be less under this alternative than under the proposed project. Long-term operation (use and maintenance) of the Park as part of this alternative would also cause an increase in ROG, NO<sub>x</sub>, or PM<sub>10</sub>. Construction of road improvements under this alternative could expose areas containing asbestos. Mitigation would be included to address this issue, as necessary. With implementation of this mitigation, this alternative would have a less-than-significant impact on air quality. For these reasons, the impacts of the Dispersed Recreation Alternative on air quality would be less than those of the proposed project.

## **Noise**

Construction of road improvements along Garden Bar Road would temporarily increase noise levels in the project area; however, there would be no noise associated with construction of trails or other recreational facilities under this alternative. Construction activities would comply with the requirements of the Placer County Noise Ordinance, and the closest noise-sensitive receptor is approximately 800 feet away. Long-term operation (use and maintenance) of the Park under the Dispersed Recreation Alternative would cause a significant increase in noise levels in the project area; however, limiting project-related traffic to less sensitive hours would reduce this impact to less than significant. The Dispersed Recreation Alternative would have a similar impact on noise compared to the proposed project on noise levels.

## **Soils, Geology, and Seismicity**

Construction of road improvements under the Dispersed Recreation Alternative would require removal of vegetation and would result in soil disturbance and minor alterations to surface topography that could result in erosion. This alternative would include vegetation removal and earthmoving activities for improvements to Garden Bar Road, but not vegetation removal for construction of trails and other recreational facilities. Construction-related impacts of the Dispersed Recreation Alternative on geology and soils would be less than those of the proposed project. However, operation-related impacts on geology and soils under this alternative would be greater because volunteer trails and foot traffic would occur over a larger area of the Park causing more

widespread erosion. In addition, volunteer trails could be created in steep areas or areas of high erosion, which would cause more long-term erosion than with the proposed project. The project area is not located within an earthquake fault zone, and no structures for human occupancy would be placed across any fault traces. Impacts of the Dispersed Recreation Alternative on soils, geology, and seismicity would be potentially significant. The County would obtain authorization for construction and operation activities from the Central Valley RWQCB, implement erosion and sediment control measures, and obtain and implement seismic engineering design recommendations to reduce impacts on geology, soils, and seismicity to a less-than-significant level. The Dispersed Recreation Alternative would have more of an impact on soils, geology, and seismicity than the proposed project.

## **Mineral Resources**

The Dispersed Recreation Alternative would not result in the loss of any known mineral resources, nor would it impede or interfere with the establishment or continuation of existing mineral extraction operations. It would not result in the loss of available known mineral resources that would be of value to the region or residents of the state, and the area is not delineated as a locally important recovery site. The impacts of the Dispersed Recreation Alternative on mineral resources would be similar to those of the proposed project.

## **Hydrology and Water Quality**

Implementation of the Dispersed Recreation Alternative would not include construction of any groundwater wells or septic systems that could affect groundwater. Potential erosion from vegetation removal and construction could affect water quality in the project area; however, this alternative would avoid vegetation removal and earthmoving activities associated with construction of trails and other facilities. Although construction-related erosion would be less under this alternative, operation-related erosion would be greater and more widespread. The Dispersed Recreation Alternative would comply with General Plan policies pertaining to water quality, and BMPs would be implemented to reduce these impacts. However, because of the dispersed nature of the impacts, it would be more difficult to minimize erosion under this alternative. Therefore, the Dispersed Recreation Alternative would have a potentially significant impact on hydrology and water quality and would have more of an impact on hydrology and water quality than the proposed project.

## **Public Services and Utilities**

Implementation of the Dispersed Recreation Alternative would not result in the need for a substantial increase in fire protection, police protection, schools, or other public facilities. The public services currently provided to the project area would be sufficient to accommodate the proposed Park. The Dispersed Recreation Alternative would not include components that would require electricity and communication, wastewater treatment, or water supply systems, and a septic system would not be constructed under this alternative. Under the Dispersed Recreation Alternative solid waste would be collected and disposed of by Auburn Placer Disposal Service. Therefore, this alternative would have a less-than-significant impact on public services and utilities. For these reasons, the impacts of the Dispersed Recreation Alternative on public services and utilities would be less than those of the proposed project.

## **Recreation**

The Dispersed Recreation Alternative would provide new recreational opportunities in response to existing demand for more recreational opportunities in Placer County. Like the proposed project, this alternative would accommodate hikers, equestrians, and mountain bikers. However, the lack of preconstructed trails would make the Park less accessible to Park users, including those with disabilities, and less attractive to many users. Without new facilities, users would not be able to easily reach much of the Spears Ranch portion of the Park that is more distant from the trails within the Didion Ranch portion of the Park. Therefore, this alternative would provide substantially fewer recreational opportunities than the proposed project. This alternative would not increase demand for more parks or facilities, nor would it negatively affect existing recreational opportunities. The

Dispersed Recreation Alternative would have a beneficial impact on recreation, but it would provide substantially less of a benefit than the proposed project.

## **Hazardous Materials and Hazards**

The Dispersed Recreation Alternative would be located in an area of medium fire danger, as rated by CalFire (2007). There is the potential for fire to be caused by construction equipment or by Park users after construction (e.g., from discarded cigarette butts). Under this alternative the potential for wildfire, compared to the proposed project, would be slightly less during construction but slightly greater during operation because Park users would access more of the Park in areas where vegetation has not been maintained. The potential also exists for small amounts of hazardous materials to be released from construction equipment under this alternative or during maintenance of the Park under this alternative. In addition, there is the potential for the public and/or construction workers to be exposed to hazardous materials and vector-borne diseases under this alternative. Because there would be less construction required under this Alternative, there would be fewer potential hazards related to construction compared to the proposed project. The Dispersed Recreation Alternative would be constructed and operated consistent with the *Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan* (Placer County 2007b), and an accidental-spill prevention and response plan would be developed to reduce these impacts. The County would also coordinate with the Vector Control District, create a safety hazard plan, and conduct soils sampling as necessary to reduce these impacts. Because these measures would be taken, this alternative would have a less-than-significant impact on hazards and hazardous materials. The impacts of the Dispersed Recreation Alternative on hazards and hazardous materials would be similar to those of the proposed project.

## **REDUCED ACCESS ALTERNATIVE (ALTERNATIVE 4)**

Under the Reduced Access Alternative, the proposed natural-surface multiple-use trails and related recreational amenities would be constructed as described for the proposed project; however, no public access to the Park would be provided via Garden Bar Road. Automobile, equestrian, and bus access would continue to be provided via Mears Drive and the existing Didion Ranch parking area would be expanded to accommodate increased use. Garden Bar Road would continue to be used by County staff for maintenance and for emergency vehicle access. Impacts of the Reduced Access Alternative are described below by resource topic.

## **Land Use and Agricultural Resources**

The Reduced Access Alternative would be consistent with the General Plan and the Placer County Zoning Ordinance. This alternative would not divide an established community, nor would it affect timber resources or operations. Grazing would be allowed to continue on the property, but no other agricultural uses would be allowed. This alternative would not interfere with surrounding land uses. This alternative would also be consistent with the *Draft Placer County Conservation Plan: Western Placer County*. Because the Reduced Access Alternative would not conflict with any land use plans in the project area and grazing would be allowed to continue, it would have a less-than-significant impact on land use, planning, and agricultural resources. The impacts of the Reduced Access Alternative on land use, planning, and agricultural resources would be similar to those of the proposed project.

## **Population, Employment, and Housing**

The Reduced Access Alternative would not involve construction of new homes or businesses. This alternative would not displace any existing housing, nor would it result in disruption or division of an established community. The proposed trails and facilities would be constructed primarily with mechanized construction techniques and only one permanent job would be created by this alternative. Therefore, construction and operation of this alternative would require few workers and would have very little effect on the local workforce. This alternative would have no effect on population, employment, or housing. The impacts of the Reduced Access Alternative on population, employment, and housing would be similar to those of the proposed project.

## **Biological Resources**

With implementation of mitigation, the Reduced Access Alternative would not substantially affect any threatened or endangered species. This alternative would have minor effects on Coon Creek, Deadman Creek, and other unnamed drainages within the Park. The Reduced Access Alternative would require the removal of vegetation, including some trees. Because this alternative would not require improvements along Garden Bar Road to accommodate public access, there would be no tree removal or impacts to biological resources along Garden Bar Road. Less vegetation would be removed for construction of a parking area at the western end of the Park; however, some additional vegetation would be removed with expansion of the Didion Ranch parking area. If access is only provided via Mears Drive, the Didion Ranch parking area would need to be expanded beyond the proposed expansion under the proposed project to accommodate the increase in use. This alternative would include mitigation to reduce impacts on special-status species, oak woodlands, and waters of the United States to a less-than-significant level. For these reasons, the impacts of the Reduced Access Alternative on biological resources would be less than those associated with the proposed project.

## **Cultural Resources**

Nine potentially significant cultural resources and one significant cultural resource are located within the Spears Ranch portion of the Park. The Reduced Access Alternative would include mitigation measures to reduce impacts on known and yet-to-be-discovered cultural resources. With implementation of these mitigation measures, this alternative would have a less-than-significant impact on cultural resources. The impacts of the Reduced Access Alternative on cultural resources would be similar to those of the proposed project.

## **Visual Resources**

The Reduced Access Alternative would introduce new physical elements into the landscape; however, there would be limited views of the trail system and recreational facilities from off-site locations. For this alternative, no changes would be made to Garden Bar Road. Construction of the project facilities under this alternative would minimize the removal of trees greater than 6 inches in dbh, thus minimizing visible canopy reduction, and would incorporate the use of natural colors and materials into Park facilities to be consistent with the natural character of the Park. In addition, no vegetation would be removed for construction of a parking area at the western end of the Park and the Garden Bar Road improvements as there would be for the proposed project. New security lighting similar to that used under the proposed project and by previous residents would be included as part of this alternative. The Reduced Access Alternative would not affect any scenic vistas. Therefore, this alternative would have a less-than-significant impact on visual resources. For these reasons, the impacts of the Reduced Access Alternative on visual resources would be less than those of the proposed project.

## **Transportation and Circulation**

Construction of trails and recreational facilities under the Reduced Access Alternative would temporarily increase traffic on Garden Bar Road during construction. Maintenance traffic on Garden Bar Road would also increase slightly after the Spears Ranch portion of the Park is opened to the public. However, no public access for automobile, equestrian, or bus traffic would be allowed via Garden Bar Road under this alternative. Therefore, the only increase in traffic on Garden Bar Road under this alternative would be a result of construction vehicles and increased maintenance traffic. No road improvements would be made on Garden Bar Road for this alternative. Access to both the Didion Ranch and Spears Ranch portions of the Park would be provided via the Mears Drive entrance, which would result in an increase in traffic on Mears Drive. Although the traffic would increase on Mears Drive, it is not expected that this increase would result in an exceedance of a LOS standard. The western parking area would not be constructed for this alternative; however, the Didion Ranch parking area would be expanded beyond the expansion proposed under the proposed project. Although this alternative would result in less traffic on Garden Bar Road, it would result in increased traffic on Mears Drive. Therefore, overall traffic

impacts of the Reduced Access Alternative on transportation and circulation would be on different roadways, but would be similar in volume to those of the proposed project.

## **Air Quality**

Construction of trails and recreational facilities under the Reduced Access Alternative would temporarily increase concentrations of ROG, NO<sub>x</sub>, PM<sub>10</sub>, diesel exhaust, and fuel vapors in the project area. In addition, long-term operation (use and maintenance) of the Park as part of this alternative would cause an increase in ROG, NO<sub>x</sub>, or PM<sub>10</sub>. There is a slight possibility that ground-disturbing activities under this alternative would also expose areas containing asbestos. Mitigation would be included to address this issue, as necessary. However, this alternative would include fewer construction-related emissions associated with improvements to Garden Bar Road and the western parking area. The Reduced Access Alternative would have a less-than-significant impact on air quality with implementation of mitigation. For these reasons, the impacts of the Reduced Access Alternative on air quality would be less than those of the proposed project.

## **Noise**

Construction of trails and recreational facilities under the Reduced Access Alternative would temporarily increase noise levels in the project area. Construction activities associated with this alternative would comply with the requirements of the Placer County Noise Ordinance. The closest noise-sensitive receptors are approximately 800 feet away. There would be less severe noise impacts from construction of improvements along Garden Bar Road and construction of the western parking area for this alternative than for the proposed project. Long-term operation (use and maintenance) of the Park under the Reduced Access Alternative would be similar to the proposed project and would not cause a significant increase in noise levels in the project area. Therefore, this alternative would have a less-than-significant impact on noise levels in the project area. For these reasons, the Reduced Access Alternative would have less of an impact than the proposed project on noise levels.

## **Soils, Geology, and Seismicity**

Construction of recreational facilities under the Reduced Access Alternative would require some removal of vegetation and would result in soil disturbance and minor alterations to surface topography, which could result in erosion. However, this alternative would involve less removal of vegetation and a lesser amount of earthmoving activity for improvements to Garden Bar Road and the western parking area. This alternative would include renovation of existing buildings on-site for human occupancy or use as a nature center and construction of bridges and bunkhouses that could be subject to ground shaking, liquefaction, and landslides. However, the project area is not located within an earthquake fault zone, and no structures for human occupancy would be placed across any fault traces. The County would obtain authorization for construction and operation activities from the Central Valley RWQCB, implement erosion and sediment control measures, and obtain and implement seismic engineering design recommendations to reduce impacts on geology, soils, and seismicity to a less-than-significant level. Impacts of this alternative on soils, geology, and seismicity would be less than significant. For these reasons, the Reduced Access Alternative would have slightly less of an impact on soils, geology, and seismicity than the proposed project.

## **Mineral Resources**

The Reduced Access Alternative would not result in the loss of any known mineral resources, nor would it impede or interfere with the establishment or continuation of existing mineral extraction operations. It would not result in the loss of available known mineral resources of value to the region or residents of the state, and the area is not delineated as a locally important recovery site. The Reduced Access Alternative would not have an impact on mineral resources; therefore, the impacts of this alternative on mineral resources would be similar to those of the proposed project.

## Hydrology and Water Quality

Implementation of the Reduced Access Alternative would include construction of up to two groundwater wells and septic system that could affect groundwater. Potential erosion from vegetation removal and construction could also affect water quality in the project area; however, this alternative would not include removal of vegetation and earthmoving activities for improvements to Garden Bar Road or the western parking area. This alternative would comply with policies pertaining to water quality in the General Plan and would implement best management practices. A grading and drainage plan would be prepared and implemented and the County would obtain a Transient Non-community Water System Permit to reduce these impacts to a less-than-significant level. Therefore, the Reduced Access Alternative would have a less-than-significant impact on water quality and hydrology in the project area. For these reasons, the Reduced Access Alternative would have slightly less of an impact on hydrology and water quality than the proposed project.

## Recreation

The Reduced Access Alternative would provide new recreational opportunities in response to existing demand for more recreational opportunities in Placer County similar to the proposed project. However, this alternative would provide no public automobile, horse trailer, or bus access to the western side of the Park for Park users, which would substantially reduce the new opportunities for recreation use of the Spears Ranch portion of the Park. Recreation users would be forced to access the Spears Ranch portion of the Park from the existing parking area and trails on the Didion Ranch portion of the Park. This alternative would not increase the demand for parks or facilities; however, the increased visitation could negatively affect existing recreational opportunities within the Didion Ranch portion of the Park. Without automobile access to the western portion of the Park, new recreation opportunities would be substantially reduced compared to the proposed project. The Reduced Access Alternative would have a beneficial impact on recreation, but it would provide substantially less of a benefit than the proposed project because of reduced access.

## Public Services and Utilities

Implementation of the Reduced Access Alternative would not result in the need for a substantial increase in fire protection, police protection, schools, or other public facilities. The public services currently provided to the project area would be sufficient to accommodate use of the Park under this alternative. The Reduced Access Alternative would have components that would require electricity and communication, wastewater treatment, septic, and water supply systems. A septic system would be constructed under this alternative as for the proposed project. For this alternative solid waste would be collected and disposed of by Auburn Placer Disposal Service. Because this alternative would not increase demand for public services and adequate utilities would be provided to accommodate Park users, the Reduced Access Alternative would have a less-than-significant impact on public services and utilities. The impacts of the Reduced Access Alternative on public services and utilities would be similar to those of the proposed project.

## Hazardous Materials and Hazards

The Reduced Access Alternative would be located in an area of medium fire danger, as rated by the California CalFire (2007). There is the potential for fire to be caused by construction equipment or by Park users after construction (e.g., from discarded cigarette butts or campfires). The potential also exists for small amounts of hazardous materials to be released from construction equipment or during maintenance of the Park under this alternative. In addition, there is the potential for the public and/or construction workers to be exposed to hazardous materials and vector-borne diseases under this alternative. Because there would be less construction required under this alternative for Garden Bar Road improvements, there would be fewer potential hazards related to construction compared to the proposed project. The Reduced Access Alternative would be constructed and operated consistent with the *Hidden Falls Regional Park Vegetation, Fuels, and Range Management Plan* (Placer County 2007b), and an accidental-spill prevention and response plan would be developed to reduce these impacts.

The County would also coordinate with the Vector Control District and create a safety hazard plan to reduce these impacts. Because these measures would be taken, this alternative would have a less-than-significant impact on hazards and hazardous materials. For these reasons, the impacts of the Reduced Access Alternative on hazards and hazardous materials would be slightly less than those of the proposed project.

### **15.1.3 SUMMARY OF ALTERNATIVES ANALYSIS**

A comparison of the proposed project, the No Project Alternative, the Single-Track Trails Alternative, the Dispersed Recreation Alternative, and the Reduced Access Alternative is presented in Table 15-1 below. This table shows the advantages and disadvantages of these alternatives relative to the proposed project.

#### **ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

The environmentally superior alternative would be the No Project Alternative; however, according to the State CEQA Guidelines, if the environmentally superior alternative is the No Project Alternative, an environmentally superior alternative must be selected from the other alternatives. The environmentally superior alternative among the other alternatives is the Reduced Access Alternative. The Reduced Access Alternative would be environmentally superior to the proposed project with regard to biological resources; visual resources; air quality; noise; soils, geology, and seismicity; hydrology and water quality; and hazardous materials and hazards. The Reduced Access Alternative would be superior to the Single-Track Trails Alternative with regard to visual resources, and the Dispersed Recreation Alternative with regard to visual resources; biological resources; cultural resources; soils, geology, and seismicity; and hydrology and water quality.

### **15.2 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED**

CEQA Section 21100(b)(2)(A) provides that an EIR shall include a detailed statement setting forth “[i]n a separate section...[a]ny significant effect on the environment that cannot be avoided if the project is implemented.” Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe any significant impacts, including those that can be mitigated but not reduced to a level of insignificance. Chapters 4.0 through 14.0 of this EIR provide descriptions of the potential environmental effects of the proposed project for all applicable environmental topic areas, as well as mitigation measures to mitigate project effects to the extent feasible. Cumulative impacts of the proposed project are discussed in Section 15.5 below. Implementation of the proposed mitigation measures would reduce all of the identified project-related significant impacts to less-than-significant levels, except for Impact 7-3: Long-Term Changes in Visual Resources Associated with the Improvements to Garden Bar Road. Mitigation Measure 7-1: Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts, would reduce this impact, but not to a less-than-significant level. Because of the number of trees that could be removed and the time required for tree plantings to reach a similar size and screening ability to existing trees, there is no feasible mitigation available to fully mitigate this impact to visual resources. Therefore, the proposed project would result in a significant and unavoidable effect on visual resources.

### Table 15-1

Issue Area	Proposed Project	No Project (Alternative 1)		Single-Track Trails (Alternative 2)		Dispersed Recreation Alternative (Alternative 3)		Reduced Access Alternative (Alternative 4)	
Land Use and Agricultural Resources	Less than significant	No impact	☐	Less than significant	★	Less than significant	★	Less than significant	★
Population, Employment, and Housing	No impact	No impact	★	No impact	★	No impact	★	No impact	★
Biological Resources	Less than significant	No impact	☐	Less than significant	☐	Less than significant	■	Less than significant	☐
Cultural Resources	Less than significant	No impact	☐	Less than significant	★	Less than significant	■	Less than significant	★
Visual Resources	Significant and Unavoidable	No impact	☐	Significant and Unavoidable	☐	Significant and Unavoidable	★	Less than significant	☐
Transportation and Circulation	Less than significant	No impact	☐	Less than significant	☐	Less than significant	☐	Less than significant	★
Air Quality	Less than significant	No impact	☐	Less than significant	☐	Less than significant	☐	Less than significant	☐
Noise	Less than significant	No impact	☐	Less than significant	☐	Less than significant	★	Less than significant	☐
Soils, Geology, and Seismicity	Less than significant	No impact	☐	Less than significant	☐	Less than significant	■	Less than significant	☐
Mineral Resources	No impact	No impact	★	No impact	★	No impact	★	No impact	★
Hydrology and Water Quality	Less than significant	No impact	☐	Less than significant	☐	Less than significant	■	Less than significant	☐
Public Services and Utilities	Less than significant	No impact	☐	Less than significant	★	Less than significant	☐	Less than significant	★
Recreation	Beneficial impact	Less than significant	■	Beneficial impact, but substantially reduced	■	Beneficial impact, but substantially reduced	■	Beneficial impact, but substantially reduced	■
Hazardous Materials and Hazards	Less than significant	No impact	☐	Less than significant	☐	Less than significant	★	Less than significant	☐

Key:

- ☒ Proposed project environmentally advantageous over the alternative
- ☐ Alternative is environmentally advantageous compared to the proposed project
- ☒ No clear environmental advantage exists between the alternative and the proposed project

Source: Data provided by EDAW in 2008



## 15.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Section 21100(b)(2)(B) provides that an EIR shall include a detailed statement setting forth “[i]n a separate section... [a]ny significant effect on the environment that would be irreversible if the project is implemented.” State CEQA Guidelines Section 15126.2(c) provides the following guidance for an analysis of significant irreversible changes of a project:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Mechanical construction techniques would be used to construct the proposed trail system and recreational facilities such as parking areas, picnic areas, restrooms, and bridges across Coon Creek and other drainages. In addition, the proposed project would commit future generations to similar uses to some extent. The proposed project would provide access to a rural area that has been inaccessible to recreational users and other members of the public. This could be considered a secondary effect of the proposed project. However, all potential effects of the proposed project for all applicable environmental issue areas are analyzed in this EIR. Therefore, this analysis assumes that no additional effects related to project development would occur that are not evaluated in other sections of this EIR.

Implementing any of the alternatives would require irretrievable commitments of both renewable and nonrenewable energy and material resources for construction of the proposed trail system and related project facilities. As described in Chapter 3.0, “Project Description,” these activities would require use of construction equipment that use petroleum fuels, such as gasoline and diesel. This temporary expenditure of energy would occur over the short term and would not substantially increase the overall demand for petroleum fuels, electricity, or natural gas. Therefore, none of the alternatives would result in a commitment of a significant amount of nonrenewable resources.

Resources in the form of construction materials and labor, fuels, and other energy sources for vehicles and equipment would also be committed with the implementation of all the other alternatives except the No Project Alternative.

## 15.4 GROWTH-INDUCING EFFECTS

CEQA Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an EIR. Section 15126.2(d) of the State CEQA Guidelines states that a proposed project is growth-inducing if it could “foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” Direct growth inducement would result if a project involved (for example) the construction of new housing. Indirect growth inducement would result if a project established substantial new permanent employment opportunities (e.g., new commercial, industrial, or governmental enterprises), involved a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services, or removed an obstacle to housing development. Examples of growth-inducing actions include extending water, wastewater, fire, or other types of services in areas not previously served; extending transportation routes into previously undeveloped areas; and establishing major new employment opportunities.

The proposed project would involve construction of a multiple-use trail system and other recreational facilities within the undeveloped, open space, recreational setting of Placer County. Implementation of the proposed project would occur in phases (see Chapter 3.0, “Project Description”), and the work would be performed by one or more crews from the California Conservation Corps, licensed contractors, volunteers, and/or County staff. These activities would generate short-term employment opportunities; however, the work would be temporary and would occur over several years, with certain activities starting and stopping for shorter durations within that time period. Because of the limited number and type of new jobs that would be generated and the temporary nature of those jobs, it is anticipated that the new jobs would be filled using the existing local employment pool. Existing available housing in the region would easily accommodate any workers who relocate from outside the area, if needed. Existing County staff members would manage the Park and trail uses with assistance from local volunteers and organized recreation groups. Therefore, this alternative would require few permanent workers and would have very little effect on the local workforce. For these reasons, indirect growth-inducing impacts resulting from implementation of the proposed project would be less than significant.

The Spears Ranch portion of the Park was purchased by the Placer Legacy Program to create a regional park with an emphasis on passive and outdoor recreation uses. This property would be managed by the County for open space, natural resources values, and outdoor recreational uses. The proposed project would be consistent with the zoning of the project area. Construction and operation (i.e., use and maintenance) of the proposed Park would not involve construction of housing. The status of the property as a contiguous natural preserve extinguishes the potential of up to 20 divisible residential parcels under current zoning. Some of the public and private services and utilities that currently serve the property would need to be altered to accommodate the Park facilities; however, no new services or utilities would be constructed with more capacity than needed for uses currently being proposed. The proposed project would also include improvements to the existing access road within the Park and to Garden Bar Road, which would improve access to the project area. However, many additional road improvements would need to occur and other requirements (e.g., water and wastewater facilities and capacity, compliance with the General Plan and Placer County Zoning Ordinance) would need to be met for any further development to occur along Garden Bar Road. Therefore, the project would not result in direct growth-inducing effects, and this impact would be less than significant.

A slight increase in economic growth may be realized from the proposed project. Construction of the proposed Park would increase the number and capacity of regional parks in Placer County, which could draw people to recreate in the project area from elsewhere in the county and region. By stimulating visitation for recreational activities, the proposed Park is also expected to result in a slight increase in related recreational spending levels. This is anticipated to lead to a minor, long-term increase in local economic activity. Such economic benefits would likely be concentrated in the sectors of the local business community that serve recreationists, specifically trail users. However, there would be no entrance fee to the Park, so no direct economic growth would result from the project. Effects on the local economy would be minimal, resulting in no significant indirect growth-inducing effects.

## **15.5 CUMULATIVE IMPACTS**

Section 15130 of the State CEQA Guidelines requires that an EIR discuss cumulative impacts of a project when the project’s incremental effect is “cumulatively considerable.” According to Section 15065, “Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, other current projects, and probable future projects as defined in Section 15130.” Sections 15130 and 15355 of the State CEQA Guidelines both stress cumulative impacts in the context of closely related projects and from projects causing related impacts.

The term “considerable” is subject to interpretation. The standards used herein to determine whether an effect is considerable are that either the impact of the proposed project would contribute in any manner to the existing significant cumulative impact, or the cumulative impact would exceed an established threshold of significance when the proposed project’s incremental effects are combined with similar effects from other projects.

State CEQA Guidelines Section 15130(b) directs the crafting of an adequate discussion of cumulative impacts:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A cumulative analysis may employ either of two methods for evaluating cumulative impacts; this EIR uses the list method in accordance with Section 15130(b)(1)(A) of the State CEQA Guidelines, which allows the lead agency to consider “past, present, and probable future projects producing related or cumulative impacts....”

The environmental influences of past projects and present projects that have been implemented already exist as a part of current conditions in the project area. Therefore, the contributions of past and present projects to environmental conditions are adequately captured in the description of the existing settings within each resource chapter (Chapters 4.0 through 14.0) and need not be specifically listed here. This cumulative impact analysis focuses on the potential cumulative physical changes to the existing setting that could occur as a result of a combination of this proposed trail project and probable future projects.

## **15.5.1 OTHER RELEVANT PROJECTS**

### **POTENTIAL ADJOINING PROJECTS**

#### **Didion Ranch Portion of Hidden Falls Regional Park (Existing Project)**

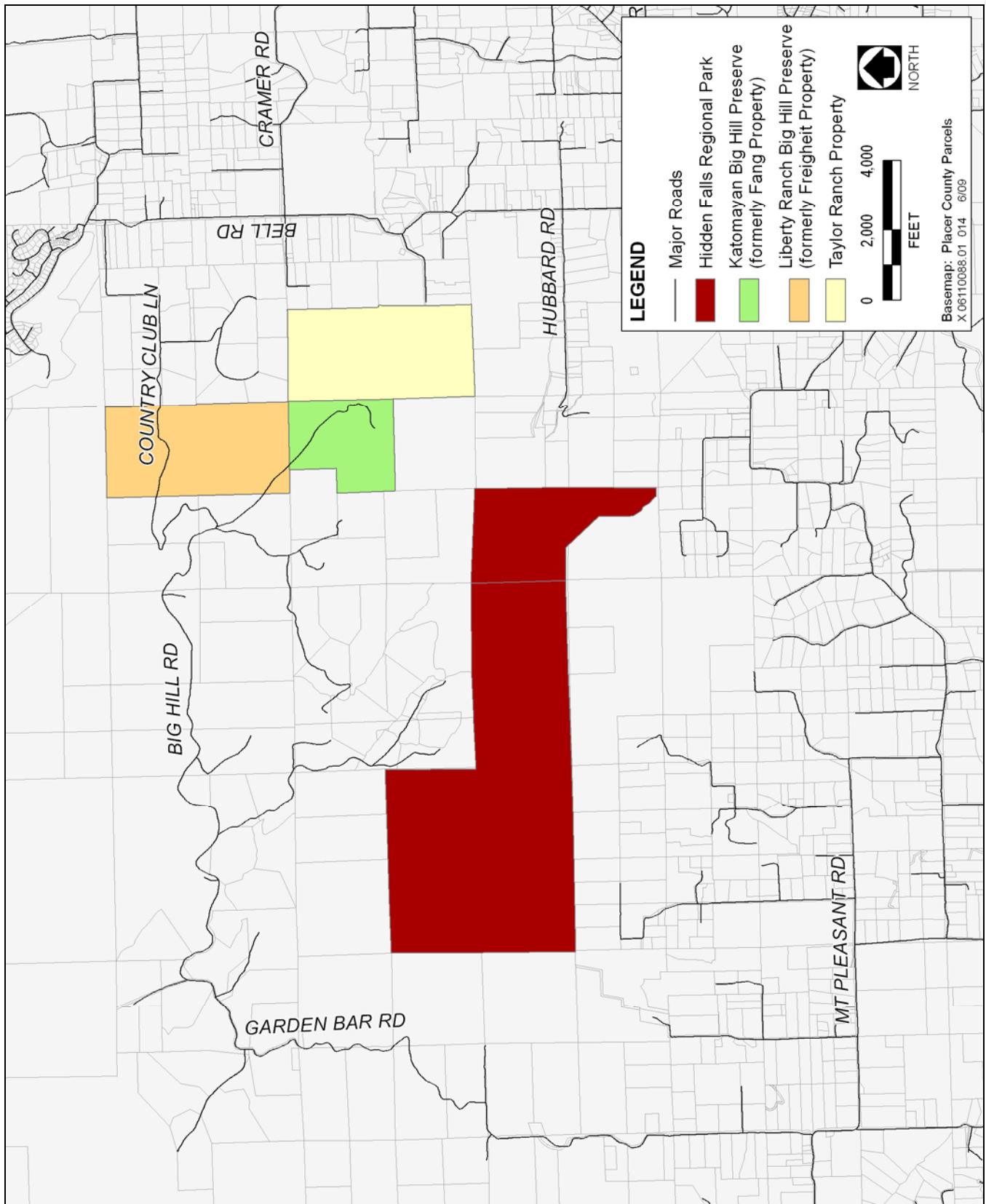
The Placer Legacy Program purchased the Didion Ranch portion of the Park in November 2004. The Didion Ranch property is approximately 221 acres and is adjacent to the Spears Ranch portion of the Park that is the subject of this EIR. An initial study/mitigated negative declaration was adopted for the Didion Ranch portion of the Park in 2004. This portion of the Park is now open to the general public from sunrise to sunset year-round. Used for passive recreation, it includes approximately 7 miles of multiple-use trails, a small picnic area, and a parking area. There is parking for approximately 50 cars and five trucks and trailers. Access to this portion of the Park is provided via Mears Drive. If the proposed project is implemented, access between the Spears Ranch and Didion Ranch portions of the Park would be provided via trail.

#### **Liberty Ranch Big Hill Preserve (formerly Freiheit Property) (Future Project)**

The approximately 320-acre Freiheit property is located approximately 2 miles northeast of the Park (Exhibit 15-1). The Placer Land Trust has acquired a conservation easement across this property. Terms of the conservation easement stipulate the offer of dedication of a public trail easement generally running from the southeast to the northwest corners of the property, and the potential exists to connect it to the proposed Park via trail in the future. Identification and recordation of the trail easement must be completed by 2012. However, there is no timeline for accommodation of a public access connection to the trail easement. General public vehicle staging is not anticipated at the Liberty Ranch Big Hill Preserve property. It is unknown when trail construction would begin on the Liberty Ranch Big Hill Preserve; however, a separate environmental analysis would need to be conducted for those facilities prior to construction.

#### **Katomayan Big Hill Preserve (formerly Fang Property) (Future Project)**

The Katomayan Big Hill Preserve is located approximately 0.7 mile northeast of the proposed Park (Exhibit 15-1). This 160-acre property borders the southern boundary of the Liberty Ranch Big Hill Preserve and the western border of the Taylor Ranch property (described below). This property was purchased by Placer Land Trust, and



Source: Data provided by Placer County in 2007

## Potential Adjoining Projects WP

## Exhibit 15-1

the potential exists to connect it to the proposed Park and the Liberty Ranch Big Hill Preserve via trail in the future. General public staging facilities are not anticipated for the Katomayan Big Hill Preserve property. Park amenities such as bench rests, picnic areas, and/or a restroom facility may be located within the property in conjunction with the trail. It is unknown when construction of trails or recreational facilities would begin on this property; a separate environmental analysis would need to be conducted for such facilities.

### **Taylor Ranch Property (Future Project)**

Similar to the Katomayan Big Hill Preserve, the Taylor Ranch property has been purchased by Placer Land Trust (Exhibit 15-1). This 320-acre parcel is located approximately 1 mile northeast of the Park. The potential exists to connect this property to the Park and other surrounding properties via trail in the future. General public staging facilities are not anticipated for the Taylor Ranch property. Park amenities such as bench rests, picnic areas, and/or a restroom facility may be located within the property in conjunction with the trail. It is unknown when construction on trails or recreational facilities would begin on this property; a separate environmental analysis would need to be conducted for such facilities.

### **Sierra Nevada Conservancy Grant #G0733008 (Action Leading to a Potential Future Project)**

On March 13, 2008, the Sierra Nevada Conservancy authorized Grant #G0733008 to Placer County to facilitate the development of a public trail connection between the Park and the Taylor Ranch property. Specifically, the grant will fund physical reconnaissance and flagging of potential trail alignments across intermediate parcels and the detailed design and cost estimation of trail, bridges, and associated amenities. The grant does not fund acquisition of property either in easement or fee.

## **OTHER PROJECTS IN PLACER COUNTY**

### **Traylor Ranch Bird Sanctuary and Nature Reserve (Existing Project)**

The Traylor Ranch Bird Sanctuary and Nature Reserve is a passive recreation park that offers nature study and interpretation, trail use, and family picnic areas. This reserve is approximately 90 acres and is located in Penryn, approximately 12 miles from the project area (Placer County 2006). This reserve is open to the public.

### **Griffith Quarry Park (Existing Project)**

Griffith Quarry Park is a passive recreation park in Penryn, approximately 14 miles from the project area. Griffith Park provides picnic areas, trails, and a county museum and is open to the public (Placer County 2006).

## **15.5.2 CUMULATIVE IMPACTS**

Cumulative impacts of the proposed project are evaluated separately for each environmental topic area addressed in this EIR. Within each topic area, the cumulative impact analysis focuses on the potential cumulative physical changes to the existing conditions that could occur as a result of a combination of the proposed project and probable future projects described above.

## **LAND USE AND AGRICULTURAL RESOURCES**

Chapter 4.0 identifies the effects of the proposed project on land use, planning, and agricultural resources. The proposed project would be consistent with the land uses and zoning of the project area, including the goals and policies of the General Plan. Trail construction is being considered for the Liberty Ranch Big Hill Preserve, Katomayan Big Hill Preserve, and Taylor properties northeast of the Park, and the proposed project would be consistent with the future land uses of those surrounding properties. In addition, grazing would be allowed to continue as part of the proposed project. Therefore, the proposed project, either alone or combined with other

projects, would not have a significant cumulative effect on land use, planning, or agricultural resources. The proposed project would not contribute to a significant cumulative effect on land use, planning, or agricultural resources.

## **SOILS, GEOLOGY, AND SEISMICITY**

Chapter 5.0 identifies the effects of the proposed project on soils, geology, and seismicity. Disturbance of topsoil and removal of vegetation during construction of the proposed project would increase the potential for wind and water erosion. The proposed project could include renovation of existing buildings on-site for human occupancy and construction of bridges and bunkhouses that could be subject to ground shaking, liquefaction, and landslides. Disturbance of naturally occurring asbestos fibers could also create a health hazard. These impacts on soils, geology, and seismicity in the project area are considered potentially significant and could be cumulatively considerable.

Mitigation of impacts of the proposed project would consist of obtaining authorization for construction and operation with the Central Valley RWQCB and implementing erosion and sediment control measures, obtaining and implementing seismic engineering design recommendations, and preparing and implementing an asbestos dust control plan, if needed. Because the proposed project would implement site-specific mitigation consistent with the Central Valley RWQCB program, the incremental effect of the proposed project is not cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. The proposed project would not contribute to a significant cumulative effect on soils, geology, or seismicity.

## **CULTURAL RESOURCES**

Chapter 6.0 identifies the effects of the proposed project on cultural resources. The proposed project has the potential to affect known cultural resources and yet-to-be-discovered subsurface cultural remains or human interments. The impacts of the proposed project on cultural resources in the project area are considered potentially significant and could be cumulatively considerable.

Mitigation of impacts of the proposed project includes modifying construction plans to avoid potentially significant cultural resources, and halting construction immediately and notifying a qualified professional archaeologist of any discovery of cultural materials or human interments. The archaeologist would determine whether the resource is potentially significant as per the California Register of Historical Resources and would develop appropriate mitigation. If a Native American burial is discovered, Sections 7050.5 and 7052 of the California Health and Safety Code and Section 5097 of the California Public Resources Code would be complied with to ensure that the site is properly protected.

Because the proposed project would implement site-specific mitigation consistent with the California Health and Safety Code and the California Public Resources Code, the incremental effect of the proposed project would not be cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. Therefore, the proposed project would not contribute to a significant cumulative effect on cultural resources.

## **VISUAL RESOURCES**

Chapter 7.0 identifies the effects of the proposed project on visual resources. The proposed project would not be visible from any scenic vistas or scenic highways. Project features would incorporate the use of natural colors and materials to the extent possible so that they would blend with the surrounding environment. Views of trails and recreational facilities from the surrounding areas would be limited. The proposed project would introduce some new security lighting on the buildings on-site; however, the lighting would be similar to lighting that has been used by the previous resident and low-wattage lighting would be used. Road improvements along Garden Bar Road would be visible to nearby residents and would change the visual character of the road. The impacts of the proposed project on visual resources along Garden Bar Road are considered significant and would be cumulatively considerable.

Revegetating temporarily disturbed areas to minimize visual quality impacts and protecting oak woodlands would reduce the visual impact, but not to a less-than-significant level. Because the project's effects would not be reduced to a less-than-significant level, the proposed project's contribution to a cumulative effect on visual resources would be considerable. Therefore, the proposed project would contribute to a significant and unavoidable cumulative effect on visual resources.

## TRANSPORTATION AND CIRCULATION

Chapter 8.0 identifies the effects of the proposed project on transportation and circulation. The impacts of developing the proposed project have also been considered within the context of long-term future traffic conditions in this area of the county. This analysis accounts for future regional traffic growth, as projected from review of historic traffic count records on roadways in the project vicinity.

The County Department of Public Works has collected daily traffic volume counts for rural roads, including Garden Bar Road and Mt. Pleasant Road, since 1971. Table 15-2 provides a general indication of changes in traffic volumes between 1971 and 2007. These data, along with the new traffic counts made for the proposed project, have been used through regression analysis to estimate the volume of traffic likely to occur on roads in the project vicinity in the year 2027 (Table 15-2).

<b>Table 15-2 Background Traffic Growth</b>						
Road	Post Mile	Location	Weekday Daily Volume			
			1971	1978	2007	2027
Garden Bar Road	2.42	North of Mt. Pleasant Road	191	–	285	500
	1.14	South of Mt. Pleasant Road	–	632	885	1,110
Mt. Pleasant Road	0.002	West of Garden Bar Road	–	266	385	540
	2.10	East of Garden Bar Road	–	361	910	1,125
Source: Data provided by KD Anderson & Associates in 2008						

These daily traffic volumes have been employed to interpolate future weekend traffic volumes and weekday peak-hour intersection turning volumes without the proposed project, as shown in Exhibit 15-2.

As noted in Table 15-3, with and without the proposed project, the volume of traffic on most county roads would remain within the LOS C threshold identified in the General Plan. Current peak-hour volumes for intersections were adjusted to future intersection volumes based on the relative growth rates implied by daily traffic volumes using methods described in the Transportation Research Board's National Cooperative Highway Research Program Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design*. Exhibit 15-3 presents "Year 2027 plus Project" traffic volumes that were developed by superimposing project trips onto the existing traffic volumes. As noted in Table 15-4, all intersections would continue to operate at a LOS that meets the County's minimum standards (i.e., LOS C or better). In addition, the County would pay a traffic impact fee to the Capital Improvement Program in accordance with Section 15.28.010 of the Placer County Code to further offset any impacts of the project on area roadways.

**Table 15-3  
Year 2027 Cumulative Daily Traffic Volumes and Levels of Service**

Road	From	To	Class	Weekday					Weekend				
				2027		2027 Plus Project			2027		2027 Plus Project		
				Daily Volume	LOS	Daily Volume		LOS	Daily Volume	LOS	Daily Volume		LOS
						Project	Total				Project	Total	
Garden Bar Road (N)	Mt. Pleasant Road	Park Entrance	Mountainous Rural	500	A	256	756	B	455	A	460	915	B
Mt. Pleasant Road	Big Bend Road	Garden Bar Road (N)	Mountainous Rural	540	A	82	622	B	435	A	148	583	B
Mt. Pleasant Road	Garden Bar Road (S)	Wally Allen Road	Mountainous Rural	1,125	B	90	1,215	C	880	B	162	1,042	B
Garden Bar Road (S)	Mt. Pleasant Road	Wise Road	Mountainous Rural	1,110	B	84	1,194	B-C	900	B	152	1,052	B

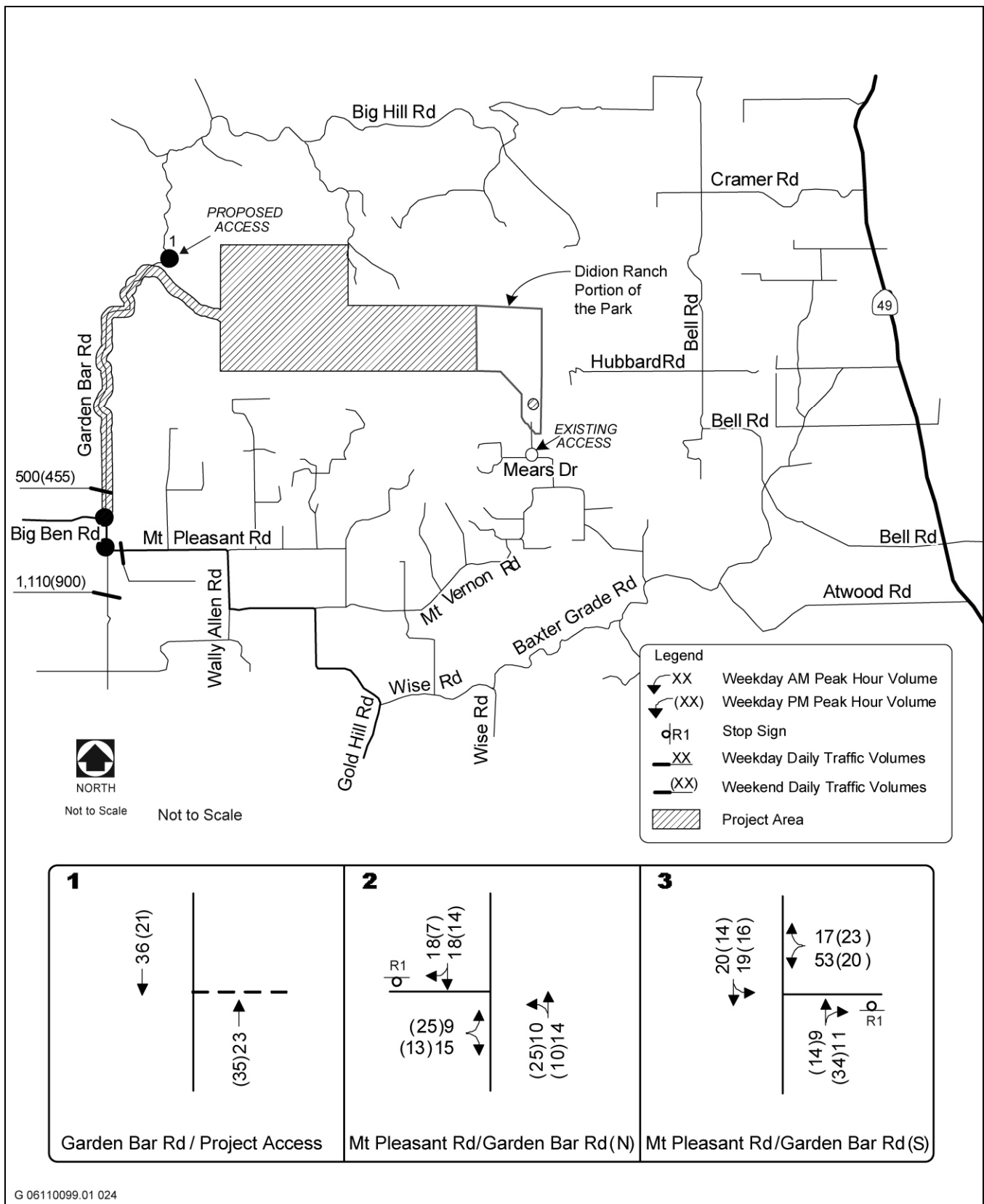
Notes: LOS = level of service; N = north; S = south  
Source: Data provided by KD Anderson & Associates in 2008

**Table 15-4  
Cumulative (Year 2027) Intersection LOS**

Intersection	Control	Weekday								Traffic Signal Warrants Met?	
		A.M. Peak Hour (7–9 a.m.)				P.M. Peak Hour (4–6 p.m.)					
		Existing		Existing Plus Project		Existing		Existing Plus Project			
		LOS	Average Delay (seconds per vehicle)	LOS	Average Delay (seconds per vehicle)	LOS	Average Delay (seconds per vehicle)	LOS	Average Delay (seconds per vehicle)	A.M. Peak Hour	P.M. Peak Hour
Garden Bar Road/ Access SB left turn WB left+right turn	WB Stop	–		– A	– 9.0	–		– A	– 8.9	No	No
Mt Pleasant Road/ Garden Bar Road (N) EB left turn SB left+right turn	SB Stop	A A	7.3 8.8	A A	7.3 8.9	A A	7.4 9.0	A A	7.4 9.1	No*	No
Mt Pleasant Road/ Garden Bar Road (S) EB left turn NB left+right turn	NB Stop	A A	7.4 9.1	A A	7.4 9.3	A A	7.3 8.8	A A	7.4 8.9	No*	No

Notes: EB = eastbound; LOS = level of service; N = north; NB = northbound; S = south; SB = southbound; WB = westbound  
Source: Data provided by KD Anderson & Associates in 2008

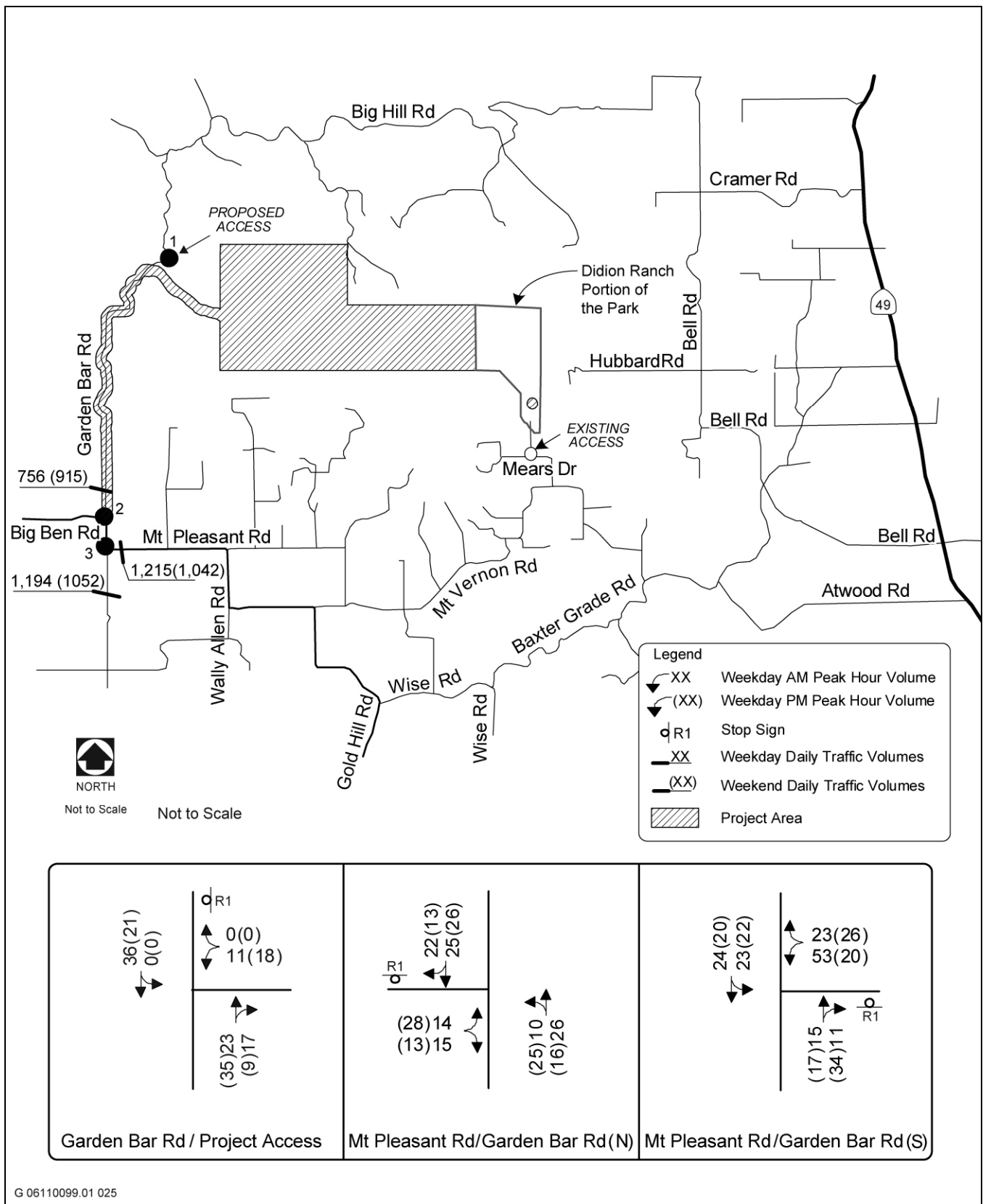




Source: KD Anderson & Associates in 2008

## Daily Traffic Volumes without Proposed Project

## Exhibit 15-2



Source: KD Anderson & Associates in 2008

### Daily Traffic Volumes Year 2027 Plus Proposed Project

### Exhibit 15-3

As shown above, the proposed project would not have a cumulatively considerable effect on transportation and circulation when considered with other past, present, and reasonably foreseeable projects. The proposed project would not contribute to a significant cumulative effect on transportation or circulation.

## **AIR QUALITY**

Chapter 9.0 identifies the effects of the proposed project on air quality. The proposed project would result in construction-related effects on air quality because construction of project facilities would generate criteria pollutants such as NO<sub>x</sub>, ROG, and PM<sub>10</sub>. All construction activities within the air basin would contribute to current air quality violations similar to those of the proposed project. Based on air quality modeling conducted, emissions of ROG and NO<sub>x</sub> associated with project operation would not exceed PCAPCD's cumulative significance threshold of 10 lb/day. In addition, PCAPCD relies, to a certain degree, on land use designations contained in general plan documents applicable to its jurisdiction. PCAPCD refers to the contents of approved general plans to forecast, inventory, and allocate regional emissions from land use and development-related sources. These emissions budgets are used in statewide air quality attainment planning efforts. Because the proposed project is consistent with the land use designations contained in the General Plan, emissions associated with the proposed land uses would have been accounted for in regional air quality planning efforts.

The air basin is in nonattainment status; however, the air quality effects of the proposed project would be minimal and temporary. Because air quality impacts associated with the proposed project would be minimal and it is assumed that other projects in the area would use mitigation as necessary to reduce their impact on air quality, the project's incremental contribution to the significant cumulative effect is not cumulatively considerable.

GHG emissions generated during construction and operation of the proposed project would be primarily in the form of CO<sub>2</sub>. CO<sub>2</sub> and other GHGs persist in the atmosphere for a much longer period of time than criteria air pollutants. New long-term emissions of GHGs associated with operation of the expanded Park would be generated by vehicle trips by Park visitors. No stationary sources of GHG emissions would be associated with the project.

For several reasons, it would be too speculative to determine whether the total operational GHG emissions generated by the proposed project would be new emissions. It is unknown whether anticipated visitors to the Park would otherwise seek similar recreational opportunities at other existing parks in the region if the new trails and Park facilities were not to be developed. Also, if the same individuals would use other parks, it is unknown whether they would travel to more-distant recreation areas, resulting in increased vehicle miles traveled and associated GHG emissions. It is conceivable that construction of the trail and the recreational facilities at the Park would reduce recreational-related vehicle miles traveled, given that it is less than 10 miles from Auburn and 15 miles from Lincoln, two major population centers in the region. Furthermore, it is also unknown whether Park visitors generate more or less GHG emissions than when they are engaged in nonrecreational activities (e.g., staying at home, shopping). Thus, it is not certain whether the long-term net change in GHG emissions associated with the proposed project would be negative or positive. Nonetheless, the amount of the net change would be nominal because the project would not directly represent an increase in the state's population by providing additional permanent residences, nor would it represent an expansion of the state's economy by providing a considerable number of new jobs. Additionally, Park features such as multiple access points, use of low-flow toilets, low-maintenance trail and recreation areas, and revegetation projects would serve to reduce GHG emissions. Therefore, any contribution by the proposed project to a net increase in GHG emissions would be less than considerable. This cumulative impact would be less than significant.

## **NOISE**

### **Short-Term Construction-Generated Noise**

Chapter 10.0 identifies the effects of the proposed project on noise. Noise is a localized occurrence and attenuates with distance. Therefore, only cumulative development projects in the direct project vicinity would have the potential to add to anticipated project-generated noise.

As discussed in Impact 10-1 in Chapter 10.0, depending on the operations conducted for the project's construction, individual equipment noise levels could range from 79 A-weighted decibels (dBA) to 91 dBA at a distance of 50 feet. Construction operations that occur between the hours of 6 a.m. and 8 p.m., Monday through Friday, during daylight savings time and between 7 a.m. and 8 p.m. during standard time are exempt from the applicable standards. However, noise levels caused by construction activities that occur during more sensitive night and evening hours may result in speech interference and increased sleep disruption to occupants of the nearby residences. Furthermore, if other nearby projects were to be constructed at the same time as the project, the proposed project and other related projects could combine to result in a short-term, significant cumulative impact.

Construction of the proposed project and nearby related projects would result in a short-term increase in traffic on the local area's roadway network, assuming that construction schedules are coincident. Residences along these roadways would be most affected by construction traffic noise because these roads provide immediate access to the project area. Daily off-site construction traffic related directly to the proposed project would include approximately four vans and 10–15 other worker/delivery vehicles related to construction.

Project-related construction activities and increases in traffic would be temporary, and according to the project description (see Chapter 3.0, "Project Description"), noise-generating construction activities would not occur during the more noise-sensitive hours (i.e., before 6 a.m. and after 8 p.m.) and therefore would be exempt from applicable noise standards. Thus, the project would not make a cumulatively considerable contribution to the short-term ambient noise level.

### **Long-Term Stationary-Source and Area-Source Noise**

As discussed in Chapter 10.0, Impact 10-2, the proposed project would not include new or expanded stationary on-site noise sources. Nearby land uses do not include stationary and area sources that would generate a substantial amount of operational noise. Area noise related to maintenance activities and recreational use would occur under the proposed project. However, no exceedance of noise standards would occur. Occasional noise from overnight camping and hunting would be temporary and would not exceed any noise standards. Furthermore, no new or potential area noise sources are adjacent to the project area. Therefore, the project would not make a cumulatively considerable contribution to area-source noise.

### **Long-Term Transportation Noise**

As discussed in Chapter 10.0, Impact 10-3, the proposed project would increase traffic noise levels on affected roadways. The Federal Highway Administration traffic noise prediction model was used to calculate traffic noise levels along affected roadways for traffic conditions in the year 2027 with implementation of the proposed project (refer to Table 15-5). The modeling is based on the trip distribution estimates presented in Chapter 8.0, "Transportation and Circulation." Input data used in the model included average daily traffic levels for nearby area roadways, fleet mixes (percentages of automobiles, medium-duty trucks, and heavy-duty trucks during daytime, evening, and nighttime hours), vehicle speeds, ground attenuation factors, roadway grades, and roadway widths.

Table 15-5 summarizes the net change in average daily traffic volumes and in modeled traffic noise levels from cumulative no-project to plus-project conditions to determine the contribution of the proposed project. Implementation of the proposed project would result in noise level increases of less than 3 dBA along Garden Bar Road and 1.3 dBA along Mt. Pleasant Road (refer to Table 15-5), which may be perceptible to the human ear.

However, with implementation of Mitigation Measure 10-1, traffic noise levels would be reduced below 3 dBA and therefore below significance thresholds identified in Chapter 10.0, “Noise,” (60 dBA, 3-dBA increase). Thus, traffic associated with the long-term operation of the proposed project would not result in a perceptible (e.g., 3-dBA or greater) increase in noise levels along affected local roadways or highways or an exceedance of Placer County standards for transportation noise sources (60 dBA). Therefore, the proposed project and related projects would not contribute significantly to cumulative traffic noise.

<b>Table 15-5 Comparison of Modeled Cumulative and Cumulative Plus Project Vehicular Traffic Noise Levels</b>			
Roadway Segment and Location	CNEL (dBA) 50 Feet from Centerline of Near Travel Lane		
	Cumulative	Cumulative Plus Project	Net Change
<b>Weekday</b>			
Garden Bar Road, north of Mt. Pleasant Road	54.6	56.4	1.8
Garden Bar Road, south of Mt. Pleasant Road	59.1	59.4	0.3
Mt. Pleasant Road, west of Garden Bar Road	57.6	58.2	0.6
Mt. Pleasant Road, east of Garden Bar Road	60.8	61.1	0.3
<b>Weekend</b>			
Garden Bar Road, north of Mt. Pleasant Road	54.2	57.2	3.0
Garden Bar Road, south of Mt. Pleasant Road	58.1	58.8	0.7
Mt. Pleasant Road, west of Garden Bar Road	56.7	58.0	1.3
Mt. Pleasant Road, east of Garden Bar Road	59.7	60.5	0.8
Notes: CNEL = community noise equivalent level; dBA = A-weighted decibels. Traffic noise levels were modeled using the Federal Highway Administration traffic noise model (FHWA 1988) based on traffic volumes obtained from the traffic report prepared for this project (Chapter 8.0, “Transportation and Circulation”). Calculated noise levels do not consider any shielding or reflection of noise by existing structures, vegetation, or terrain features; or noise contribution from other sources. See modeling results in Appendix E for further detail. Source: Modeling performed by EDAW in 2008.			

## HYDROLOGY AND WATER QUALITY

Chapter 11.0 identifies the effects of the proposed project on hydrology and water quality. The proposed project could result in temporary discharges of sediment and other contaminants into ephemeral drainages and Coon Creek in the project area. Installation of an on-site septic system could cause a change in the quality of the groundwater in the project area, and implementation of the proposed project could cause impacts on groundwater supply because of the installation of up to two groundwater wells to be used as a source for drinking water and restrooms. These impacts on water quality and hydrology are considered potentially significant. The contribution of the proposed project to cumulative effects on water quality and hydrology in the project area could be cumulatively considerable.

As mentioned above under “Soils, Geology, and Seismicity,” mitigation of impacts of the proposed project would include obtaining authorization for construction and operation with the Central Valley RWQCB and implementing erosion and sediment control measures. Mitigation would also include preparing and implementing a grading and drainage plan and the County will obtain a Transient Non-community Water System Permit. Because the proposed project would implement site-specific mitigation consistent with the Central Valley RWQCB program and County permits, the incremental effect of the proposed project is not cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. The proposed project would not contribute to a significant cumulative effect on water quality or hydrology.

## BIOLOGICAL RESOURCES

Chapter 12.0 identifies the effects of the proposed project on biological resources. Other known cumulative projects in the project vicinity are future parks in which the greatest potential for adverse effects on special-status species would consist of habitat disturbance related to construction and passive recreation. These impacts on biological resources are considered potentially significant. The contribution of the proposed project to cumulative effects on biological resources in the project area would be cumulatively considerable.

Mitigation of impacts of the proposed project consist of establishing buffers around sensitive resources, conducting preconstruction surveys, preserving oak woodland habitat within the project area, paying in-lieu fees for oak woodland preservation consistent with the Placer County Tree Ordinance, and obtaining and complying with terms of applicable permits. The proposed project would implement site-specific mitigation consistent with regulations of the U.S. Fish and Wildlife Service, California Department of Fish and Game, and U.S. Army Corps of Engineers that would reduce these impacts to a less-than-significant level. Therefore, the incremental effect of the proposed project would not be cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. This impact would be less than significant.

## PUBLIC SERVICES AND UTILITIES

Chapter 13.0 identifies the effects of the proposed project on public services and utilities. Use of the proposed Park could increase the demand for emergency services in the project area; however, this increased demand would be small and would not result in the need for a significant increase in emergency services. The proposed project would include installation of up to two groundwater wells and septic system within the Park. Although soils in the project area exhibit limitations for the installation of a septic system, soil testing has identified suitable soils for a septic system. Therefore, the proposed project, either alone or combined with other projects, would not have a significant cumulative effect on public services or utilities. The proposed project would not contribute to a significant cumulative effect on public services or utilities.

## HAZARDOUS MATERIALS AND HAZARDS

Chapter 14.0 identifies the effects of the proposed project on hazardous materials and hazards. Sparks from construction and maintenance equipment could generate fire risks in the project area, which has been identified as a medium fire hazard area (CalFire 2007), and Park users could generate fire risks (e.g., from discarded cigarette butts, campfires). The proposed project also has the potential to expose people to vector-related hazards and expose workers to hazardous materials during facility construction or maintenance. These impacts are potentially significant and could be cumulatively considerable.

However, the County would continue to use the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* as a working guide to reduce the risk of fire in the project area and would continue to work with CalFire to reduce the fire hazard within the Park. Fire reduction measures may include grazing, creating fuel breaks, and manual removal of excess vegetation. An accidental-spill prevention and response plan would be implemented, employees handling hazardous materials would be trained in safety measures, and hazardous materials would be stored in a designated staging area. A safety hazard plan would also be prepared and implemented to ensure construction workers are not exposed to hazards. In addition, as mentioned above under “Soils, Geology, and Seismicity” and “Hydrology and Water Quality,” the project would obtain authorization for construction and operation with the Central Valley RWQCB and implement erosion and sediment control measures. Because the proposed project would implement this site-specific mitigation, the incremental effect of the proposed project is not cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. The proposed project would not contribute to a significant cumulative effect on hazardous materials and hazards.

## 16.0 REPORT PREPARERS

### 16.1 PLACER COUNTY, DEPARTMENT OF FACILITY SERVICES

Albert Richie.....Deputy Director  
Andy Fisher.....Project Manager  
Sandy Spurgeon.....Project Manager

### 16.2 EDAW, INC — PRIME CONSULTANT

Curtis E. Alling, AICP.....Principal-in-Charge  
Debra Bishop.....Project Manager  
Stephanie Rasmussen.....Assistant Project Manager  
Matt Jacobs.....Environmental Analyst  
John Hope.....Environmental Analyst  
Thomas Leeman.....Senior Wildlife Biologist  
Tracy Walker.....Wildlife Biologist  
Petra Unger.....Senior Botanist  
Sarah Bennett.....Regulatory Biologist/Botanist  
Mark Bibbo.....Botanist  
Chris Fitzer.....Senior Fisheries Biologist  
Dave Epstein.....Fisheries Biologist  
Brian Ludwig.....Senior Archaeologist  
Loren Huddleston.....Archaeologist  
Richard Deis.....Archaeologist  
Angel Tomes.....Architectural Historian  
Honey Walters.....Senior Air Quality and Noise Specialist  
Poonam Boparai.....Air Quality Specialist  
Jake Weirich.....Noise Specialist  
Ted Daum.....Hydrologist  
Phil Hendricks.....Landscape Architect  
Gregory Oakes.....Landscape Architect  
Julie Nichols.....Editor  
Phi Ngo.....GIS Specialist  
Lisa Clement.....GIS Specialist  
Amber Giffin.....Document Production Specialist  
Deborah Jew.....Document Production Specialist  
Gayiety Lane.....Document Production Specialist  
Roni Olaizola.....Document Production Specialist

### 16.3 KD ANDERSON—TRAFFIC ENGINEERING CONSULTANT

Ken Anderson.....Principal Engineer

### 16.4 PSOMAS—CIVIL ENGINEERING SUBCONSULTANT

Brian G. Wright.....Senior Project Engineer

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## **CHAPTER 16.0—REPORT PREPARERS**

None.

## **17.2 PERSONS CONSULTED**

Eicholtz, Bob. Fire protection planner. California Department of Forestry and Fire Protection. September 2007—telephone conversation with Matt Jacobs of EDAW regarding fire protection staffing in Placer County.

Navicky, James. Environmental scientist. California Department of Fish and Game. Sacramento, CA. August 20, 2007—telephone conversation with Dave Epstein of EDAW regarding fish sampling in Coon Creek.

Salinas, Julio. Staff Toxicologist. Office of Health Hazard Assessment, Sacramento, CA. August 3, 2004—telephone conversation with Kurt Legleiter of EDAW regarding exposure period for determining health risk.

Spears, Bradley. Previous landowner. Lincoln, CA. October 2006—telephone conversation with Angel Tomes of EDAW about the history of the Hidden Falls property.

## **APPENDIX A**

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Notice of Preparation



**COUNTY OF PLACER**  
**Community Development Resource Agency**

John Marin, Agency Director

**ENVIRONMENTAL  
COORDINATION  
SERVICES**

Gina Langford, Coordinator

**DATE:** June 15, 2007

**TO:** Interested Parties

**SUBJECT:** **Notice of Preparation of an Environmental Impact Report for Hidden Falls Regional Park (PEIR T20070444)**

**REVIEW PERIOD:** **June 15, 2007 – July 16, 2007**

Placer County will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified above in accordance with the California Environmental Quality Act (CEQA), Section 15082. The purpose of the Notice of Preparation (NOP) is to provide responsible agencies and interested persons with sufficient information in order to make meaningful responses as to the scope and content of the EIR. Your timely comments will ensure an appropriate level of environmental review for the project.

**Project Description/Location:** Hidden Falls Regional Park is approximately 1,182 acres in the Sierra Nevada foothills, which consists of the properties formerly known as Spears Ranch (961 acres) and Didion Ranch (221 acres). The project site is situated along Coon Creek and is south of the Bear River. Garden Bar Road is located to the west; Mt. Vernon and Mt. Pleasant Roads are to the south; and Bell and Hubbard Roads are to the east.

For more information regarding the project, please contact Andy Fischer, Senior Planner, (530)889-6819 or email: [afisher@placer.ca.gov](mailto:afisher@placer.ca.gov)

A copy of the 10-page NOP is available for review at the Auburn Library, Placer County Community Development Resource Agency, and County website:

<http://www.placer.ca.gov/Home/CommunityDevelopment/EnvCoordSvcs/EnvDocs/EIR.aspx>

**Scoping Meeting:** The Lead Agency will hold a public Scoping Meeting to receive oral comments on Thursday, June 28, 2007, 6:30 pm in the Planning Commission Hearing Room, Community Development Resource Center, located at 3091 County Center Drive, Auburn.

**NOP Comment Period:** Written comments should be submitted at the earliest possible date, but not later than 5:00 pm on July 16, 2007 to Maywan Krach, Environmental Coordination Services, Community Development Resource Agency, 3091 County Center Drive, Suite 190, Auburn, CA 95603, (530)745-3132, fax (530)745-3003, or [cdraecs@placer.ca.gov](mailto:cdraecs@placer.ca.gov)

## PURPOSE OF THE NOTICE OF PREPARATION

Placer County, as the Lead Agency, will prepare an Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) for the proposed Hidden Falls Regional Park Project (proposed project). In accordance with Section 15082 of the CEQA Guidelines, Placer County has prepared this Notice of Preparation (NOP), which is intended to solicit comments from public agencies and other interested parties on the scope and content of the information to be addressed in the EIR for this project.

Once a decision is made to prepare an EIR, the lead agency must prepare a NOP to inform all responsible and trustee agencies (agencies) that an EIR will be prepared (CEQA Guidelines Section 15082). The NOP is designed to provide stakeholders with sufficient information describing the proposed project and its potential environmental effects to enable agencies and the public to make a meaningful response related to the scope and content of information to be included in the EIR.

The purpose of this notice is twofold:

- (1) to solicit input, by July 16, 2007, from interested individuals, groups, and agencies about the desired content and scope of the draft EIR to be prepared by Placer County for the proposed project, and
- (2) to announce a public scoping meeting on the proposed project, to be held at 6:30 p.m. on June 28, 2007, at the Planning Commission Hearing Room, Community Development Resource Center, located at 3091 County Center Drive, Auburn.

## PROJECT DESCRIPTION

CEQA defines a “project” as any activity directly undertaken by a public agency that “may cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment” (Public Resources Code Section 21065). Public Resources Code Section 21151(a) specifies that a local agency must prepare an EIR on any project that it proposes to carry out or approve that may have a significant impact on the environment. It has been determined that the proposed Hidden Falls Regional Park Project may result in significant environmental impacts, and therefore, Placer County will prepare an EIR on the proposed project. A description of the proposed project is provided below.

## PROJECT LOCATION

The proposed project is located between North Auburn and the City of Lincoln in Placer County, approximately 40 miles northeast of Sacramento. Hidden Falls Regional Park is approximately 1,182 acres in the Sierra Nevada foothills, which consists of the properties formerly known as Spears Ranch (961 acres) and Didion Ranch (221 acres) (Exhibits 1 and 2). The project site is situated along Coon Creek and is south of the Bear River. Garden Bar Road is located to the west; Mt. Vernon and Mt. Pleasant Roads are to the south; and Bell and Hubbard Roads are to the east.

## PROJECT BACKGROUND AND HISTORY

On December 23, 2003, Placer County acquired the 961-acre Spears Ranch, and on November 5, 2004, Placer County acquired the 221-acre Didion Ranch through the Placer Legacy Open Space and Agricultural Conservation Program (Placer Legacy) for park and open space purposes. Placer Legacy was created in 2000 to implement the goals and policies of the Placer County General Plan and to allow the community to retain its unique natural heritage, minimize conflicts between conservation and economic development, and enhance the prosperity of current and future residents. In September 2004, a mitigated negative declaration was adopted for the Didion Ranch portion of the park; therefore, the environmental review process has been completed for the Didion Ranch site. Thus, this EIR will focus on the Spears Ranch (961 acres) portion of the park.



## PROJECT COMPONENTS

The proposed project would include many different features and uses of the proposed park. Specific features and uses that are being considered for the proposed park are as follows:

### TRAIL SYSTEM / MISCELLANEOUS PASSIVE RECREATION FACILITIES

- ▶ approximately 12 miles of new unpaved trails in addition to 10 miles of existing ranch roads for hikers, bikers, and equestrians, including bridge crossings over Coon Creek, Deadman Creek, and ephemerals to support the trail network and connections to the existing trail system within the Didion Ranch portion of the park (Exhibit 3);
- ▶ trail/bridge connections to other public trails in proximity to the Hidden Falls Regional Park Property (in addition to the trail network constructed on site);
- ▶ no more than two permanent restroom facilities and associated septic/water systems in addition to existing facilities and septic systems;
- ▶ portable and/or pit type restroom facilities as required to accommodate authorized uses;
- ▶ emergency access bridge over Coon Creek;
- ▶ fire suppression amenities;
- ▶ equestrian facilities;
- ▶ picnic facilities including covered pavilions;
- ▶ benches and rest areas throughout the park;
- ▶ hunting as a management tool;
- ▶ improvements to facilitate public access to viewing areas;
- ▶ fitness/ropes course(s);
- ▶ disc golf;
- ▶ drinking fountains;
- ▶ holding organized events;
- ▶ interpretive programs including signage, displays, and/or guided tours; and
- ▶ other facilities and activities consistent with Placer Legacy Open Space and Agricultural Preservation Program goals and objectives.

### VEHICLE ACCESS AND PARKING

A traffic study is required to determine the level of vehicle access that may be permitted to the project site via Garden Bar Road. Depending on the outcome of the study, any or all of the following public access options may be incorporated into the proposed project:

- ▶ public access to the site through the 221-acre site via the trail system currently existing on the Didion Ranch portion of the park; only maintenance/emergency vehicles would be allowed to enter the site beyond the existing parking lot on the 221-acre site (While it is anticipated that some level of public vehicle access to the westerly portion of the site via Garden Bar Road will be necessary to accommodate expected use demand, public vehicle access may be limited to the facilities at the 221 acre site during initial phases of development of the westerly 961 acres of the park);
- ▶ a parking/staging/drop-off area along Garden Bar Road near the existing service entrance road; pedestrian/equestrian access to the site would be permitted along the existing service road/easement;
- ▶ a parking/staging area on-site near the westerly property boundary with associated access road from Garden Bar Road; vehicle traffic would be allowed on-site, but regulated per the findings of the traffic study.

In addition, the following options are being considered for parking:

- ▶ a surfaced parking lot to accommodate anticipated uses and a gravel equestrian parking area;
- ▶ a gravel overflow parking area; and
- ▶ a parking lot to accommodate a nature/conference center.

### **SIGNAGE / INTERPRETIVE PROGRAM**

- ▶ directional signage would be placed along primary public access routes from both Auburn and Lincoln;
- ▶ directional and informational signage located at strategic locations throughout the Park; and
- ▶ a kiosk would be placed at each parking/staging area in addition to interpretive and directional signage and/or audio-visual displays at key points throughout the property.

### **EMERGENCY FACILITIES / VEHICLE ACCESS**

- ▶ an emergency access bridge capable of supporting fire fighting equipment will be constructed over Coon Creek;
- ▶ existing low flow crossings along ranch roads would be improved and maintained across Coon Creek;
- ▶ a fuel load reduction/fire prevention plan would be prepared and implemented for the site; and
- ▶ a water storage tank/pond and hydrant assembly.

### **USE OF EXISTING RANCH HOUSE / EVENTS**

- ▶ A variety of renovation and use options will be evaluated for the existing primary ranch house. Uses under consideration include conference facility, nature center, event facility, environmental education camp, and others.
- ▶ Group events such as cross country track meets, weddings, conferences, and educational field trips/camps will be evaluated in conjunction with the traffic study. The study will evaluate and define group events in the following categories:
  1. Group events that may be conducted as a regular use.
  2. Group events that should be regulated by separate event permit.

## **EDUCATIONAL FACILITIES / USES**

Under the direction of the Placer County Department of Facility Services, any or all of the following may be evaluated:

- ▶ educational /agricultural / scouting camps may be conducted on-site;
- ▶ academic agricultural / ecological research projects;
- ▶ multi-day or overnight educational / agricultural / scouting camps may be conducted on-site subject to agreement and conditions determined by the County on a case-by-case basis;
- ▶ access for school programs such as cross-country training and track meets, and educational field trips that are consistent with passive recreation and education would be permitted; potential uses include renovation of the existing ranch house as a conference/nature center, caretaker residence, wedding facility, or camp facility; and
- ▶ the two existing site buildings to the southeast of the ranch house will be re-constructed for educational, maintenance, caretaker, or other uses.

## **MAINTENANCE FACILITIES**

- ▶ maintenance yard – to be located in proximity to the ranch house and staging area. Yard would be used to store and maintain equipment including tractors, mowers, ATVs, and attachments;
- ▶ maintenance shop/barn – would be a new building or renovation of one or more of the existing buildings;
- ▶ an enclosed dumpster;
- ▶ maintenance yard lighting; and
- ▶ perimeter and cross fencing will have maintained access for maintenance vehicles.

## **FISHING / WILDLIFE / HABITAT RESTORATION**

- ▶ designated fishing locations may be developed in coordination with Department of Fish and Game;
- ▶ fish passage amenities;
- ▶ fishing ponds may be developed in conjunction with the fuel load reduction/grazing plans and in coordination with Department of Fish and Game; and
- ▶ habitat restoration projects to include oak woodland, grassland, and riparian restoration/habitat enhancement.

## **FENCING**

- ▶ perimeter fencing around the property would be maintained; and
- ▶ cross fencing and riparian/sensitive area exclusionary fencing may be constructed where appropriate throughout the property.

## **AGRICULTURE**

Under the direction of the Placer County Department of Facility Services, any or all of the following may be conducted:

- ▶ continued agricultural activities, including grazing; and
- ▶ farm management practices (fence maintenance, irrigated pasture expansion, etc.);
- ▶ agricultural research projects by qualified institutions;
- ▶ agricultural education programs; and
- ▶ potential leases for grazing and/or growing.

## **FILM PRODUCTION/THEATRE**

- ▶ film and theatre productions subject to approval by Placer County.

## **PROJECT ALTERNATIVES**

The EIR will evaluate a range of alternatives in accordance with Section 15126.6 of the State CEQA Guidelines. The alternatives evaluation will consist of a qualitative and comparative analysis of several project alternatives, at a varying level of detail, including the “No Project” Alternative.

## **SCOPING**

Scoping is an initial, essential, and critically important component of the proposed project. Scoping will help to identify the final range of actions, alternatives, site design options, environmental impacts to be evaluated, methods of assessment, and mitigation measures that will be analyzed in the EIR. The scoping process will help to eliminate from detailed study those issues that are not critical to the decision at hand. It is also an effective way to bring together and resolve the concerns of interested federal, state, and local agencies; specific stakeholder groups; and the general public.

As specified by the CEQA Guidelines, the NOP will be circulated for a 30-day review period. The 30-day NOP review and comment period begins **June 15, 2007** and ends **July 16, 2007**. Written responses can be submitted anytime during the NOP review period. Please include the name of a contact person for your agency, if applicable. All written public and agency comments should be directed to:

Maywan Krach  
Placer County Community Development Resource Agency  
3091 County Center Drive, Suite 190  
Auburn, CA 95603  
fax 530-745-3003  
cdraecs@placer.ca.gov

## **SCOPING MEETING**

In accordance with Public Resources Code Section 21083.9, notice is hereby given that Placer County will conduct a scoping meeting on June 28, 2007 at 6:30 p.m. at the Planning Commission Hearing Room, Community Development Resource Center, located at 3091 County Center Drive, Auburn, California to accept oral comments on the environmental issues that should be addressed in the EIR.

## **AGENCY ROLES AND RESPONSIBILITIES**

### **PLACER COUNTY**

Placer County will serve as the lead agency for CEQA compliance and will coordinate with CEQA responsible and trustee agencies. As lead agency under CEQA, Placer County will be primarily responsible for conducting the environmental review process, including scoping, preparing appropriate environmental documentation, and obtaining required permits and other regulatory approvals. Following completion of the EIR, the Placer County Board of Supervisors will decide whether to certify and approve the EIR.

### **REQUIRED APPROVALS AND PERMITS**

Permits and approvals would be required from the following federal, state, and local agencies for the construction of the proposed project:

- ▶ U.S. Army Corps of Engineers (USACE)
- ▶ Central Valley Regional Water Quality Control Board (RWQCB)
- ▶ California Department of Fish and Game (DFG)
- ▶ U.S. Fish and Wildlife Service (USFWS)
- ▶ County Community Development Resource Agency (CDRA) (Minor Use Permit)
- ▶ County Department of Public Works (encroachment permit for Garden Bar Road)
- ▶ County Environmental Health Division (sewage system evaluation and water system permit)

### **PROBABLE ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT**

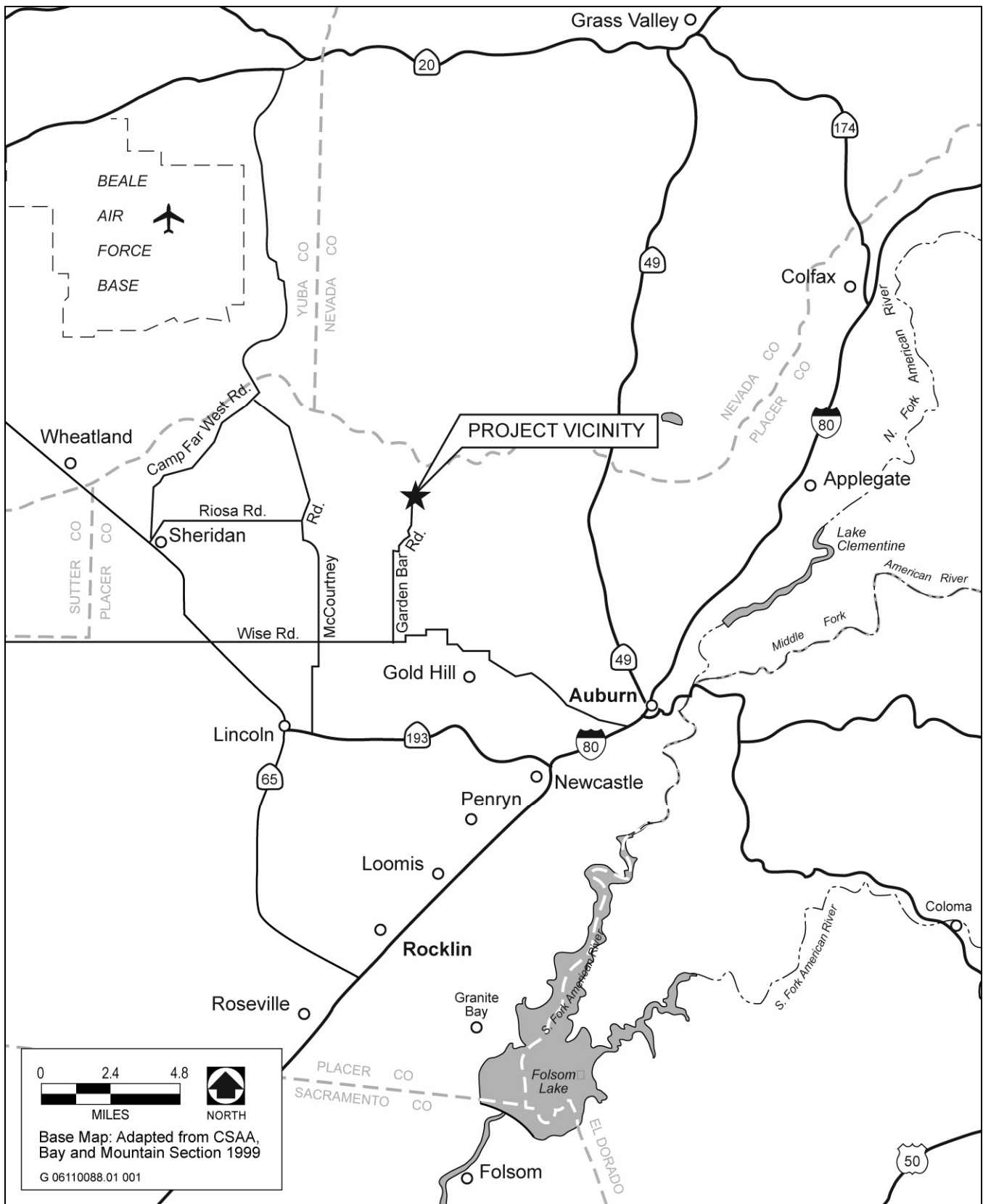
The EIR will analyze a broad range of environmental impacts associated with the implementation of the proposed project. Based on the environmental analysis previously conducted in Placer County's Initial Study (IS), Placer County has determined that the proposed project has the potential to result in environmental impacts on the following resources:

- ▶ Land Use and Planning
- ▶ Geology and Soils
- ▶ Hydrology and Water Quality
- ▶ Air Quality
- ▶ Traffic and Transportation
- ▶ Biological Resources
- ▶ Noise
- ▶ Public Services and Utilities
- ▶ Aesthetics and Visual Resources
- ▶ Cultural Resources
- ▶ Hazards and Hazardous Materials

Project-related impacts to the following resources were found to be absent, or at less-than-significant levels, and therefore, will not be carried forward for further analysis in the EIR:

- ▶ Energy and Mineral Resources
- ▶ Population and Housing

Your views and comments on how the project may affect the environment are welcomed. Please contact Andy Fisher if you have any questions about the environmental review process for the proposed Hidden Falls Regional Park Project.

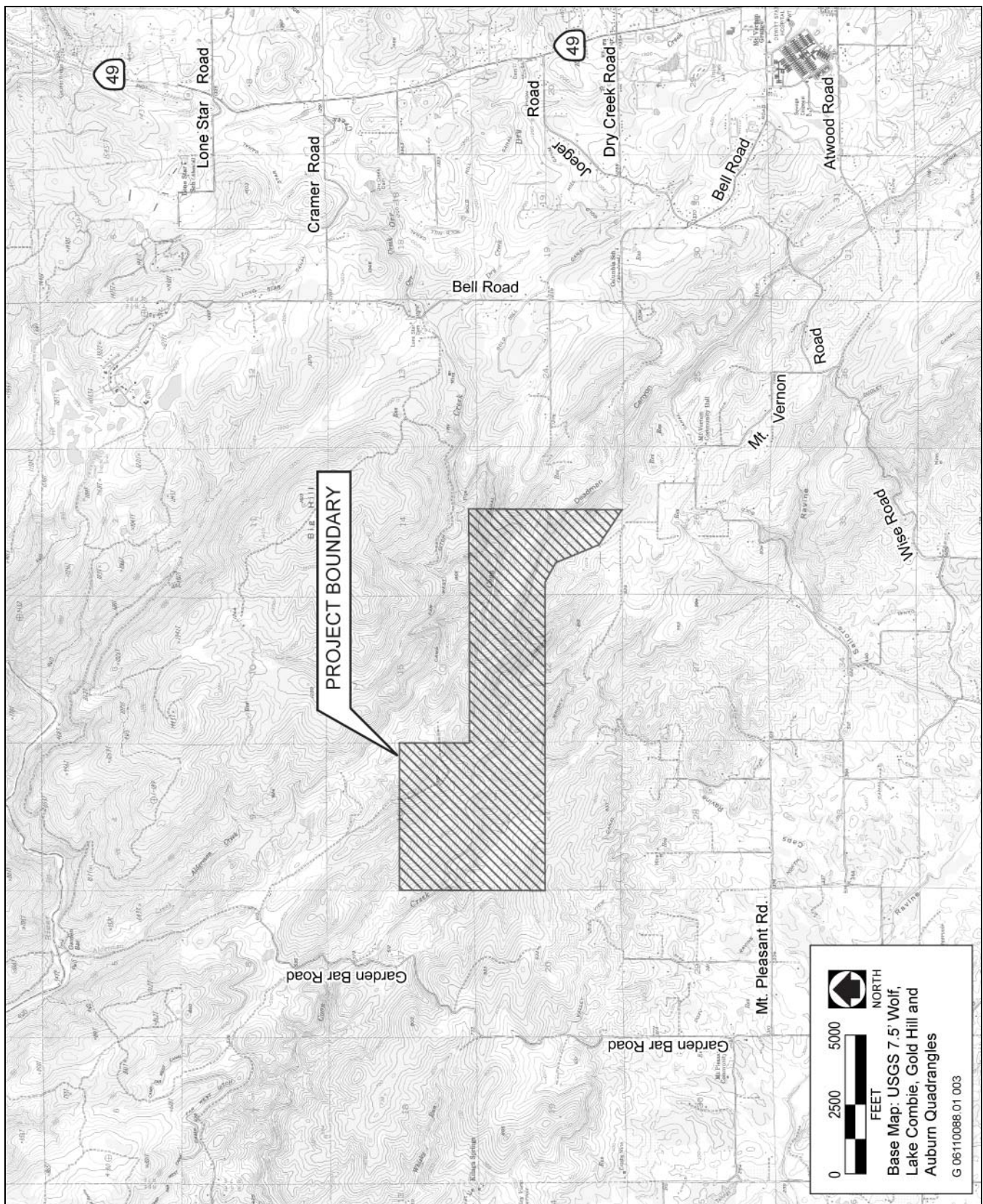


Source: EDAW 2006

## Project Vicinity Map

## Exhibit 1



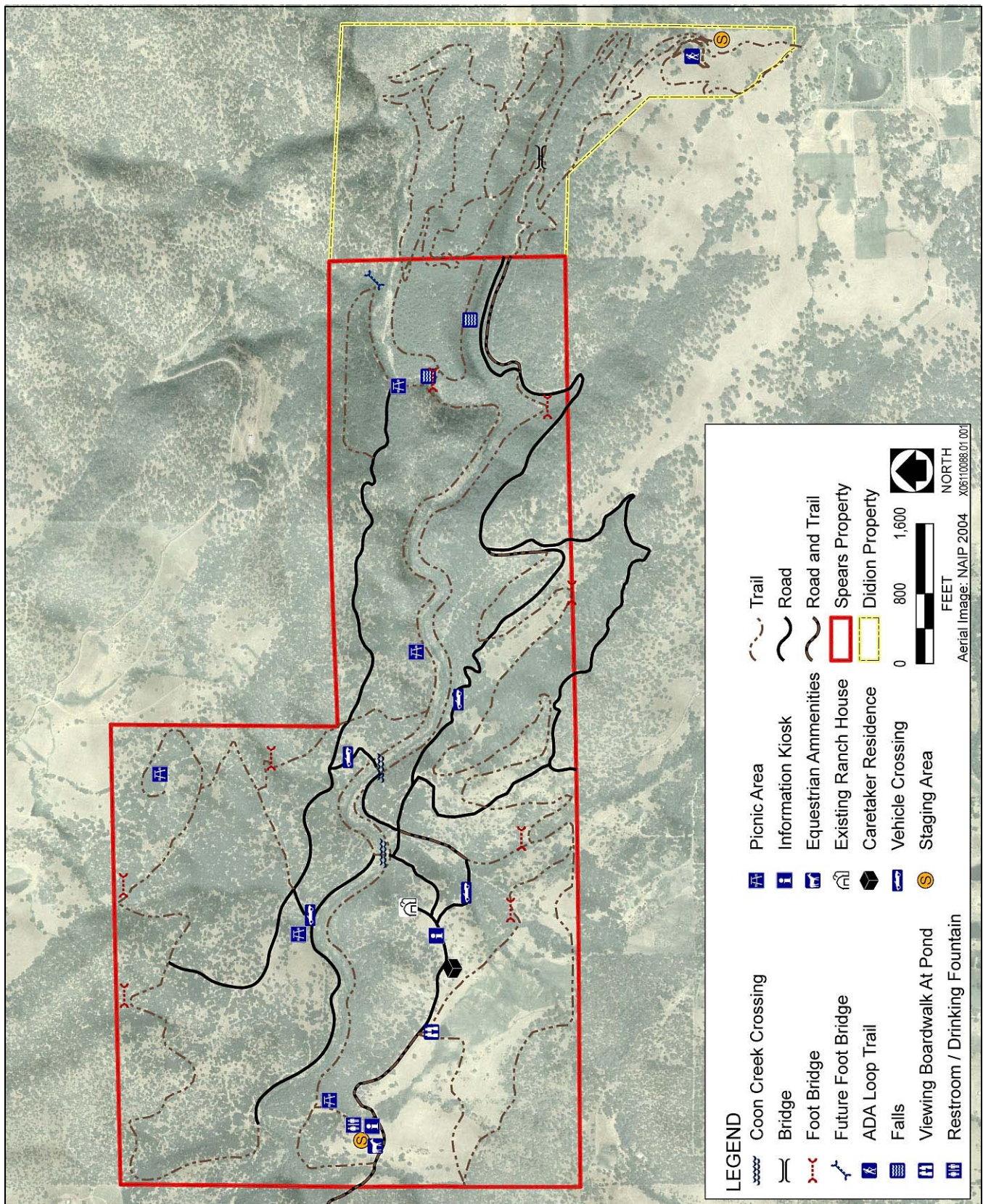


Source: EDAW 2007

**Project Location Map**

**Exhibit 2**





Source: Placer County 2006

## Proposed Hidden Falls Project Features

## Exhibit 3



## **APPENDIX B**

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Traffic Report

**TRAFFIC IMPACT ANALYSIS**  
**FOR**  
**HIDDEN FALLS REGIONAL PARK ADDITION**  
Placer County, California

Prepared For:

**EDAW**  
2022 J Street  
Sacramento, CA 95811

Prepared By:

**KD Anderson & Associates, Inc.**  
3853 Taylor Road, Suite G  
Loomis, CA 95650  
(916) 660-1555

April 23, 2008

Job No. 2630-26

*Hidden Falls Park 4.23.08.rpt*

**TRAFFIC IMPACT ANALYSIS FOR  
HIDDEN FALLS REGIONAL PARK ADDITION  
Placer County, CA**

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April 23, 2008

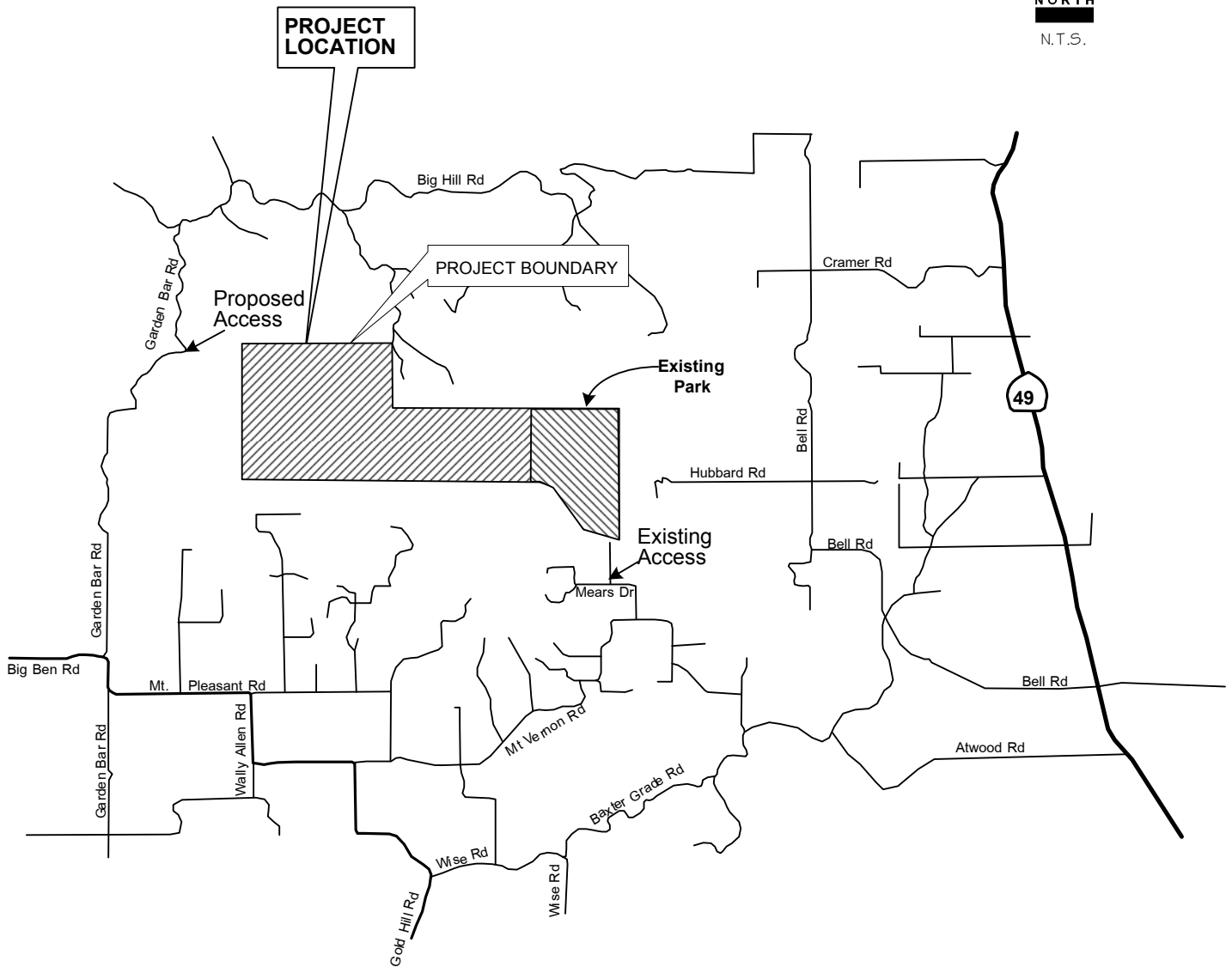
# **TRAFFIC IMPACT ANALYSIS FOR HIDDEN FALLS REGIONAL PARK ADDITION**

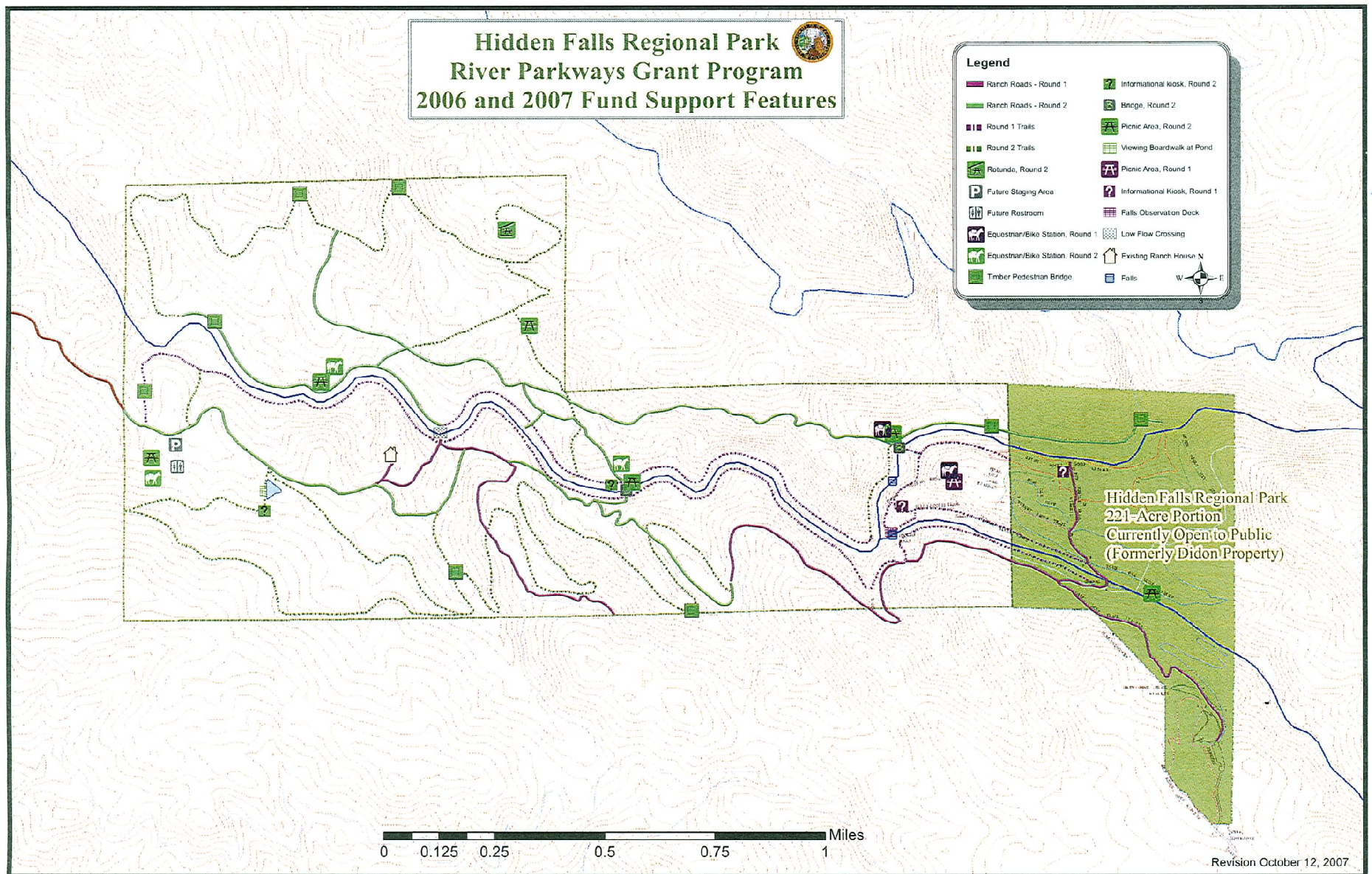
## **INTRODUCTION**

This report documents **KD Anderson & Associates'** assessment of traffic impacts associated with development of the **Hidden Falls Regional Park Addition** project in Placer County. This analysis is intended to quantify the traffic impacts of the project and address circulation and access in the vicinity of the project site within the context of both current and future background conditions.

### **Project Description**

The Hidden Falls Regional Park Addition project proposes development of an 979 acre site to be added to the County's existing park west of the City of Auburn. The current park facilities are located off of Mears Drive in the area north of Mount Vernon Road. The park addition is generally located to the west between the existing facilities and Garden Bar Road, as shown in Figure 1. While the facilities in the project can be accessed via the roadways already serving the existing site, a new access to the project site will be created onto Garden Bar Road. The proposed project includes phased implementation of improvements to Garden Bar Road to support use of that road by the public. Regional access to the project will be via rural Placer County roads such as Mt Pleasant Road, Garden Bar Road and Mt Vernon Road, which link the site with SR 193 to the south and SR 49 to the east.





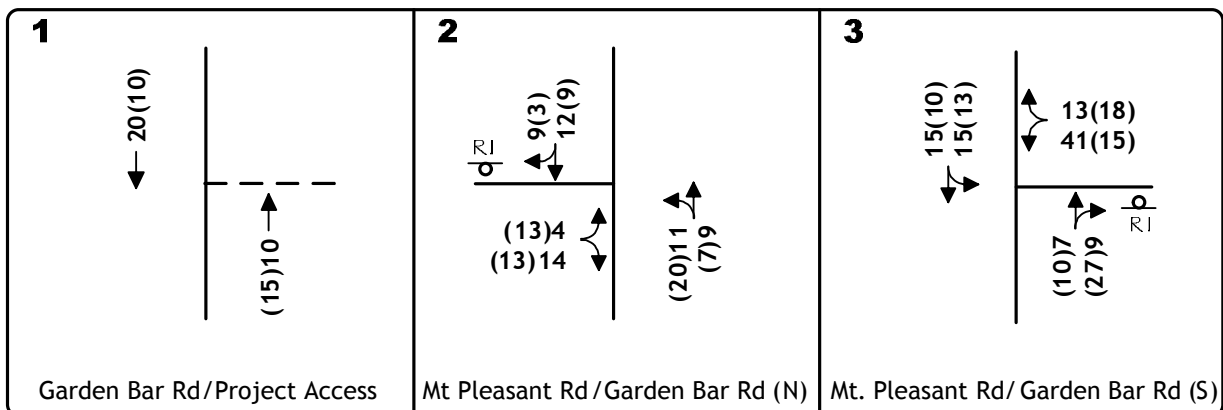
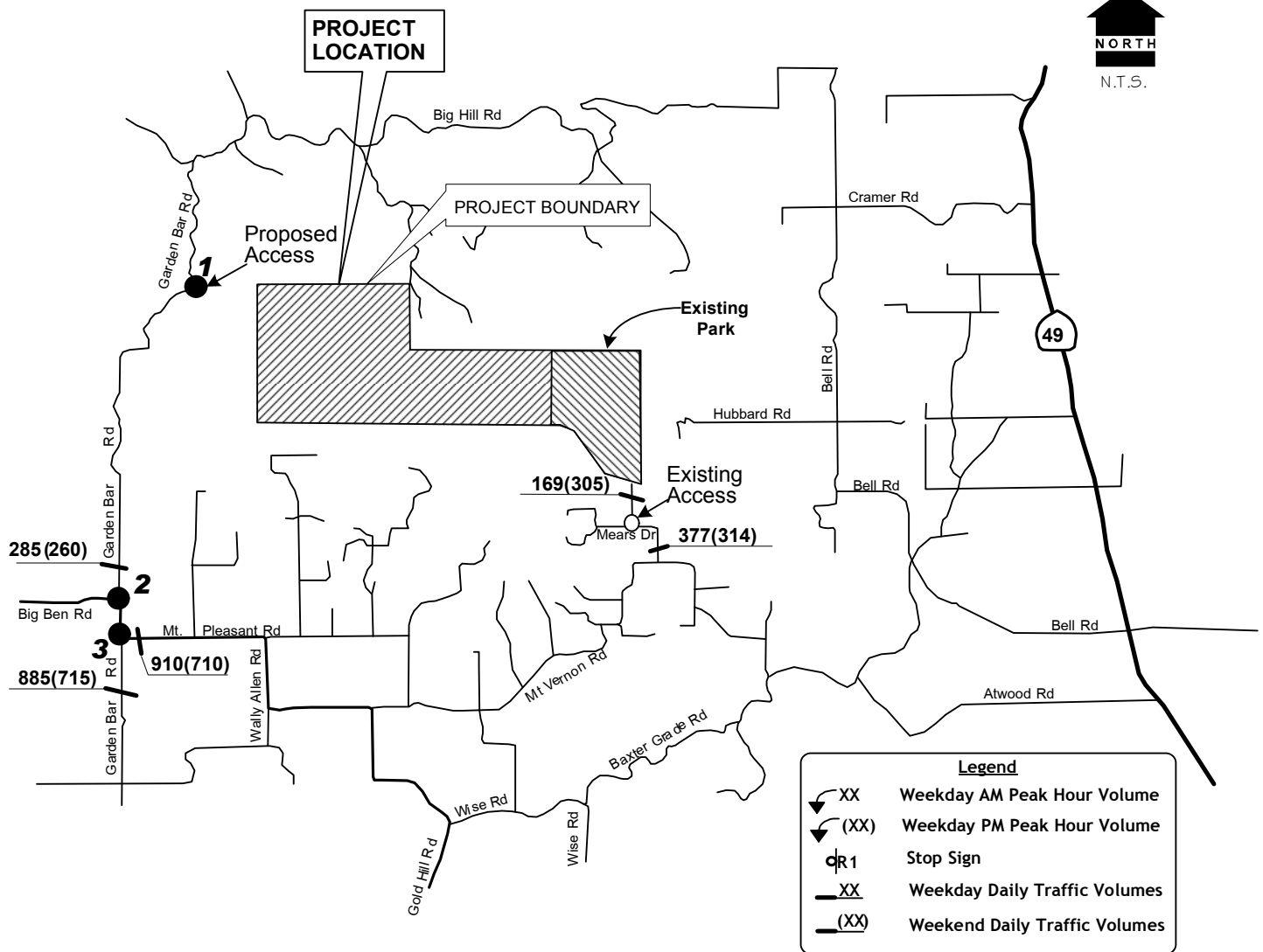
*KD Anderson & Associates, Inc.*  
Transportation Engineers

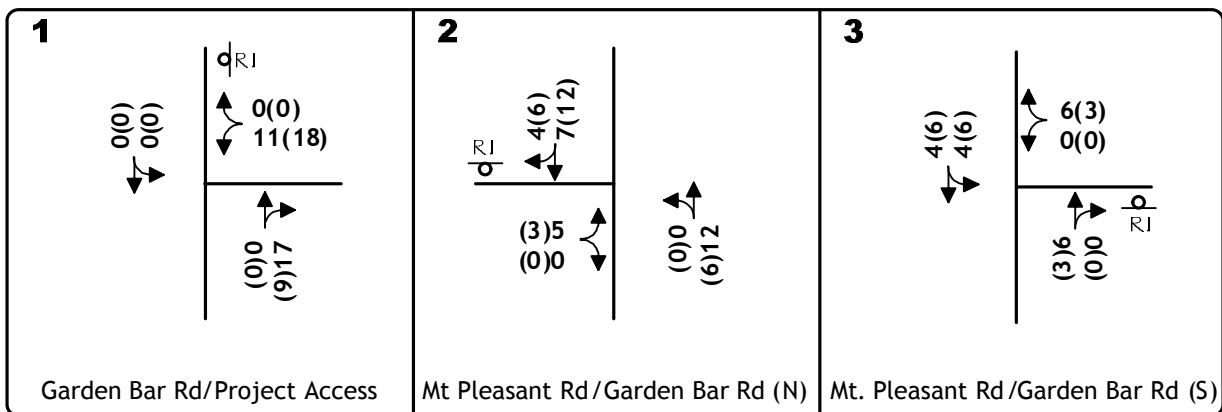
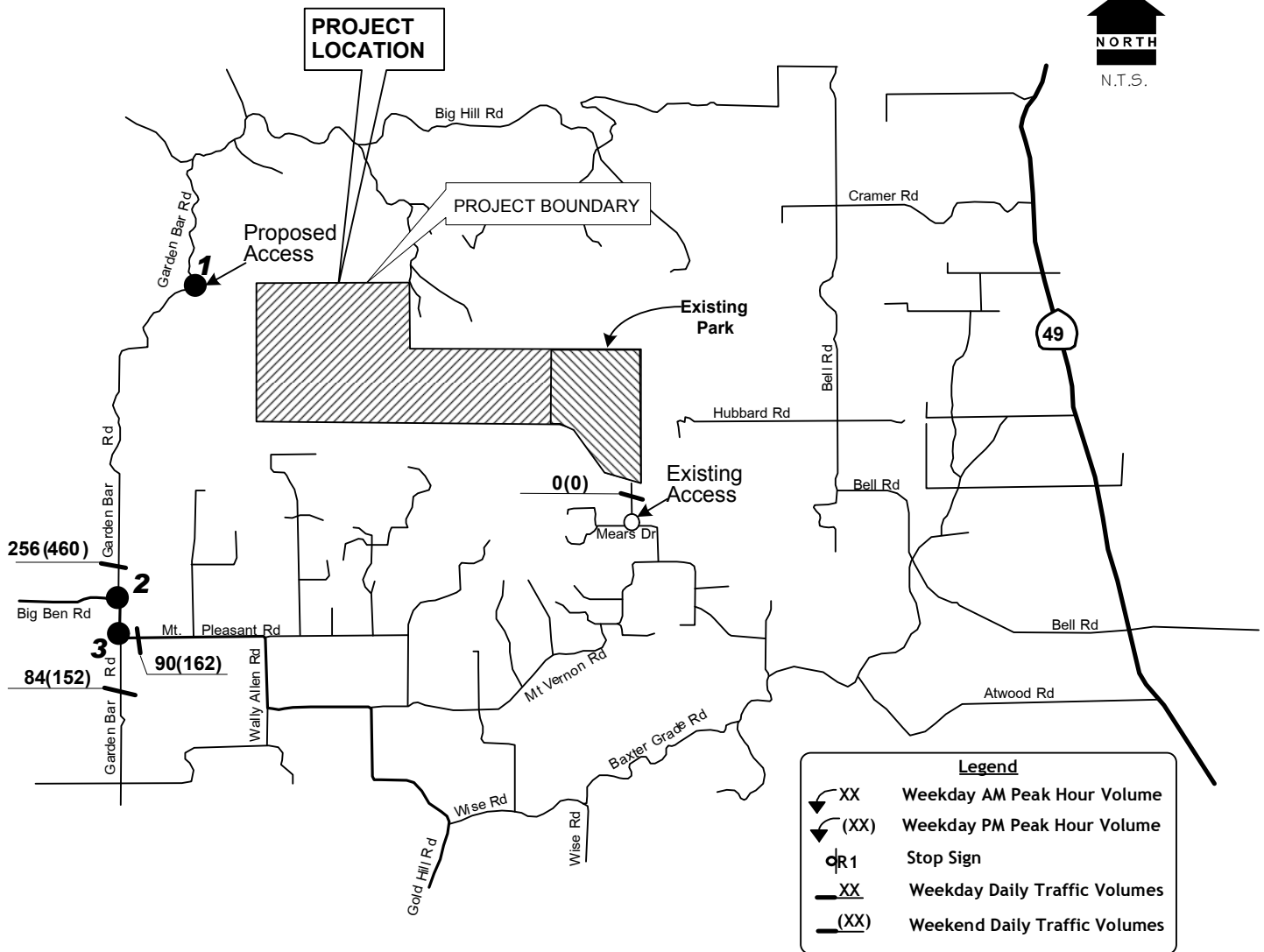
SITE PLAN

2630-26.VSD

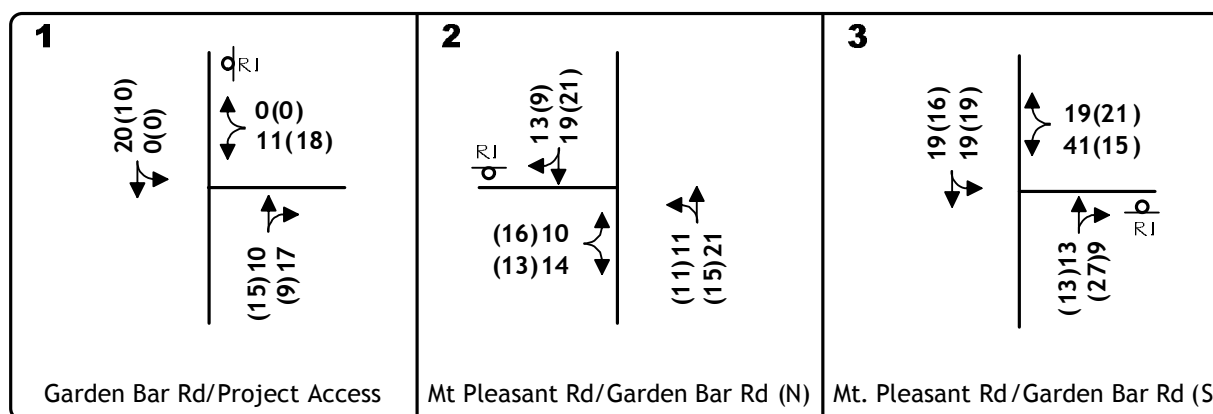
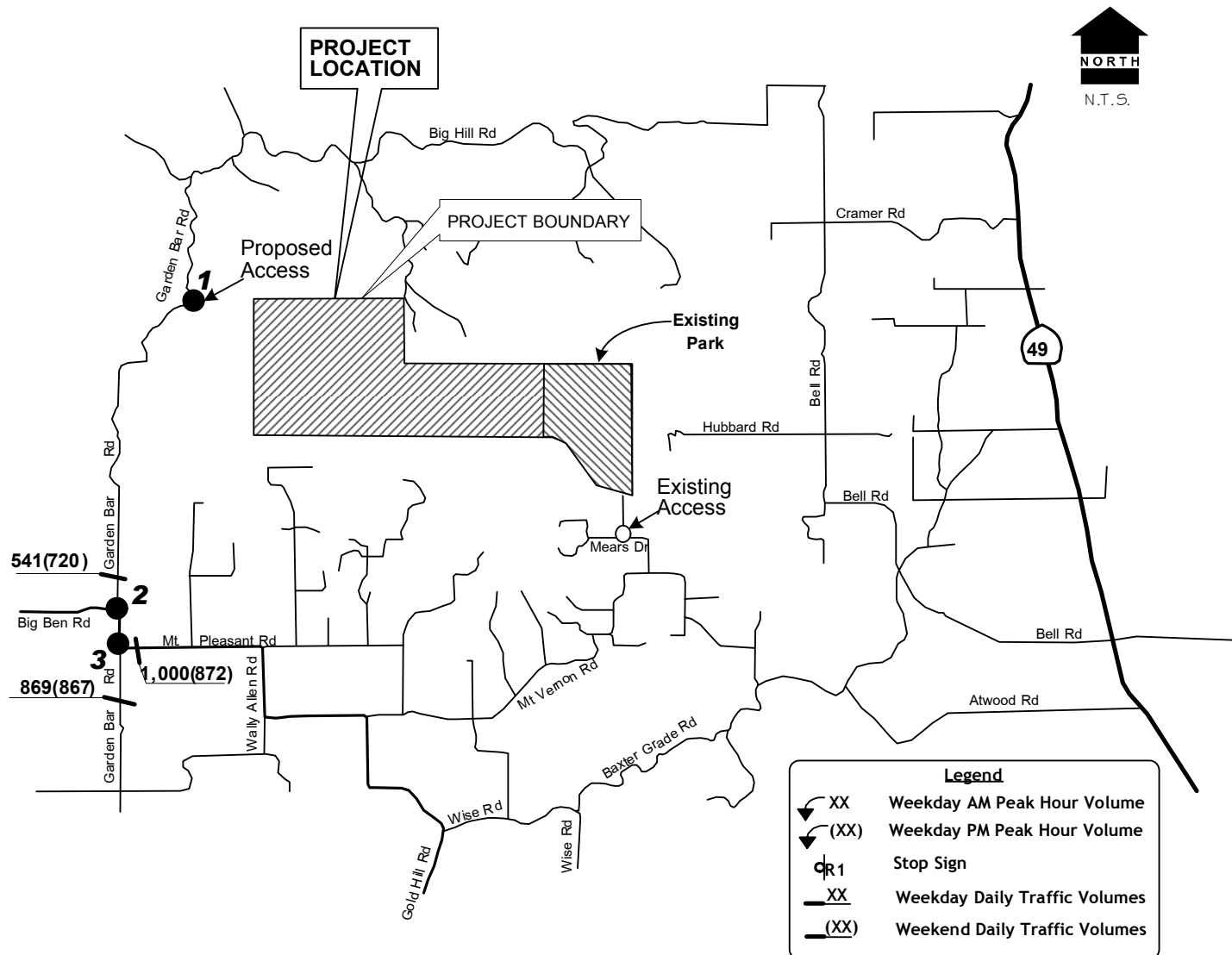
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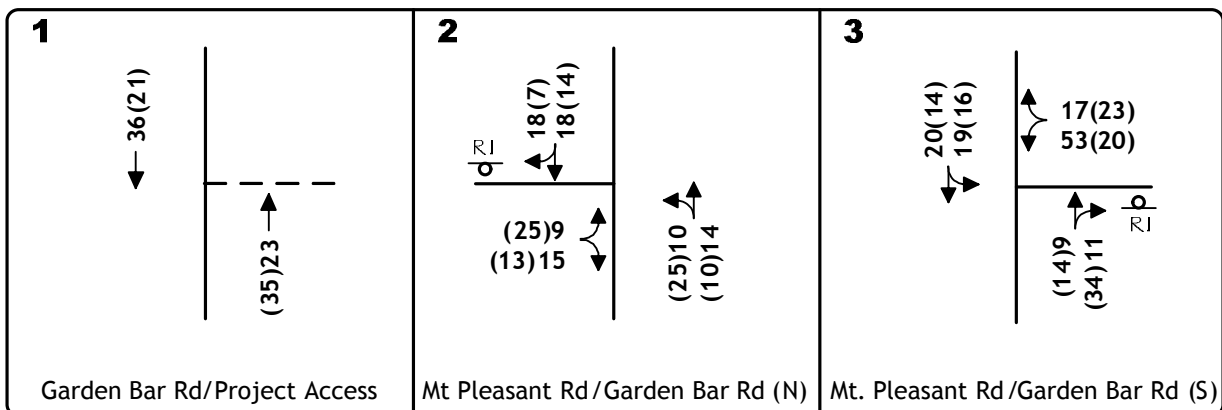
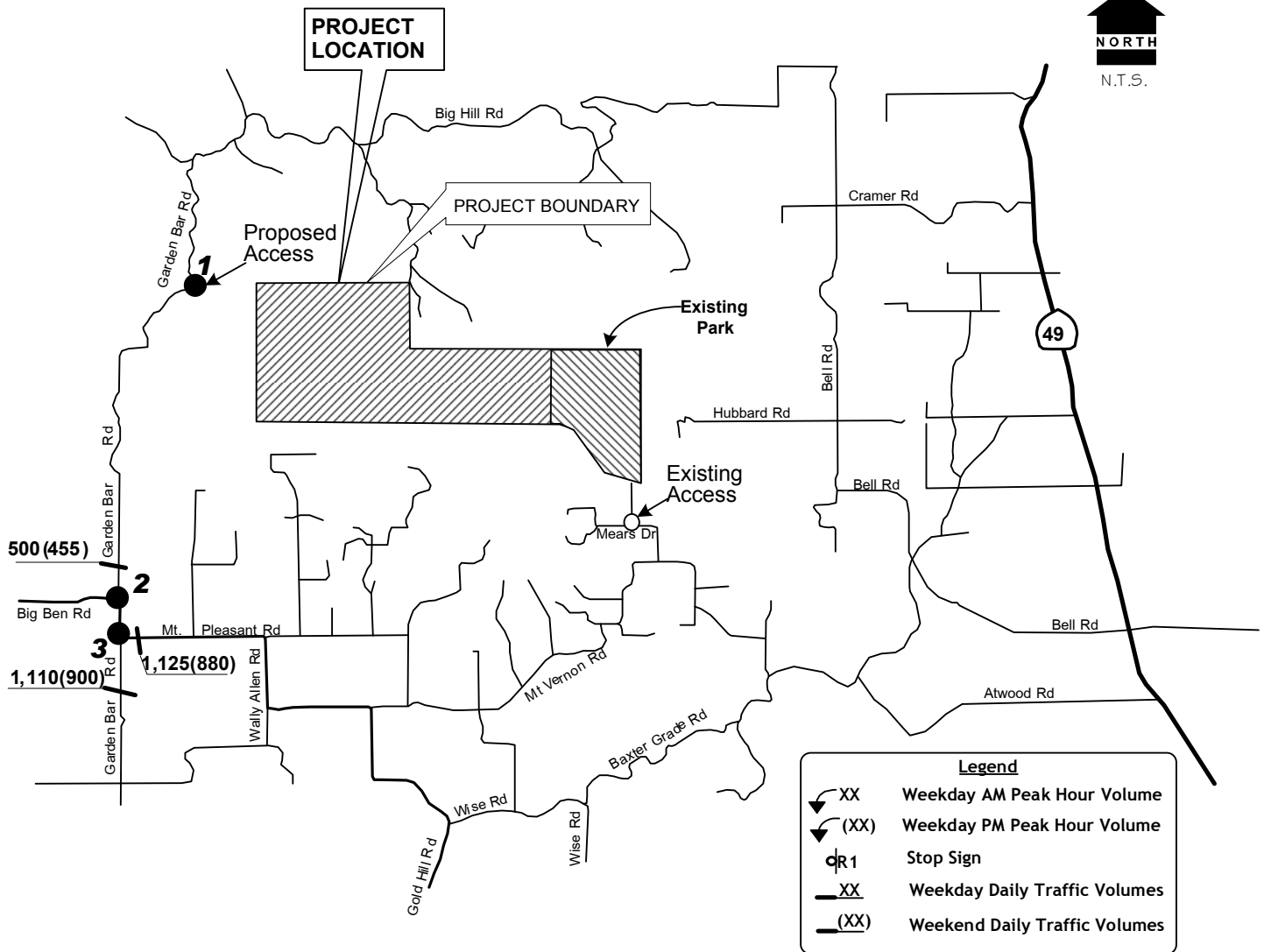
figure 2





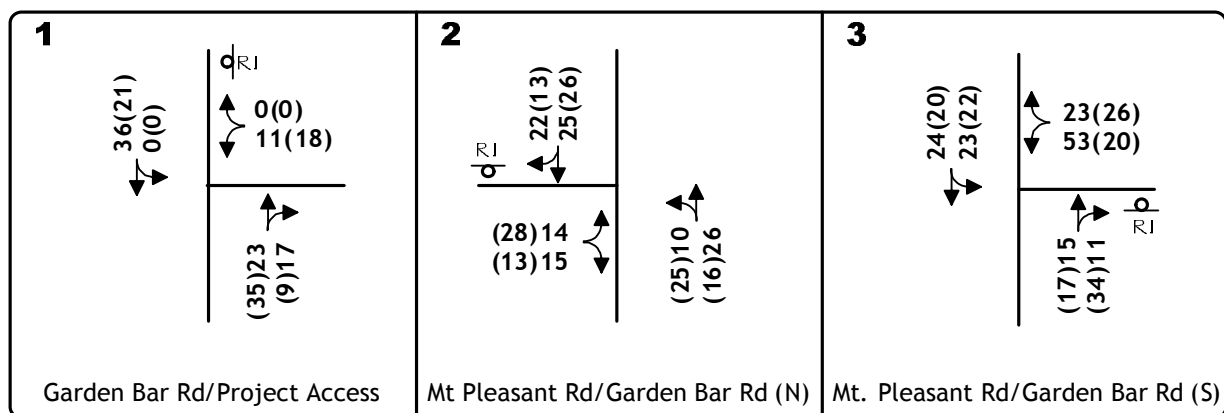
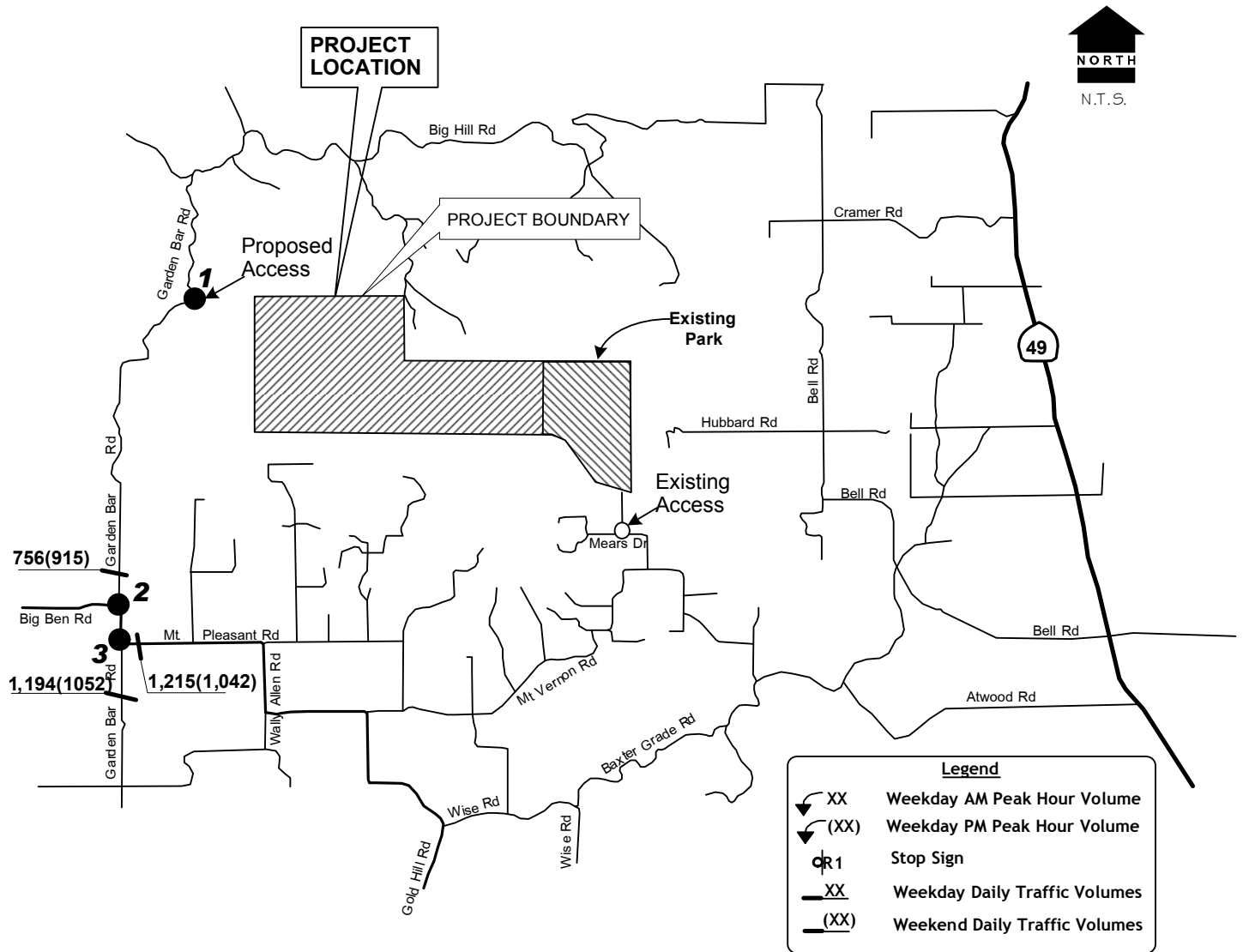


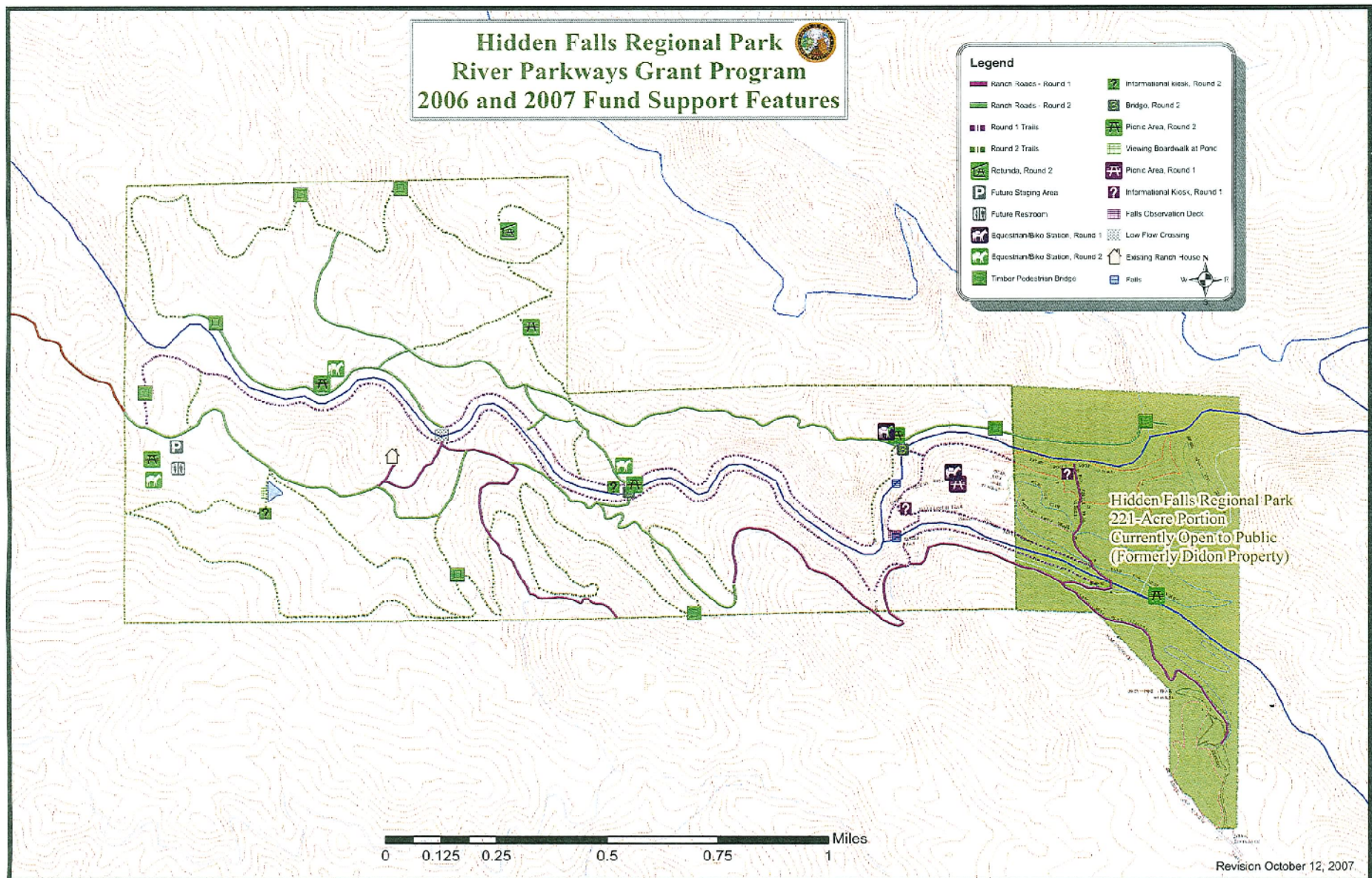




YEAR 2027 NO PROJECT  
TRAFFIC VOLUMES  
AND LANE CONFIGURATIONS

*KD Anderson & Associates, Inc.*  
Transportation Engineers





## **EXISTING SETTING**

Regionally, the project site is served primarily by a series of rural Placer County roads which link the park with Lincoln to the west, Loomis and the Penryn – Horseshoe Bar area to the south and the Auburn area to the east. Regional roads such as Mt Pleasant Road, Garden Bar Road and Mt Vernon Road, Big Ben Road, Wise Road, Riosa Road, McCourtney Road, Fowler Road, Fruitvale Road, and Gold Hill Road will link the site with SR 65 to the west, SR 193 to the south and SR 49 to the east. Locally, the traffic using the site will use Mt Vernon Road and Mears Drive to reach the existing parking facilities that serve the existing portion of the park. The new park access off of Garden Bar Road can be reached via Mt Pleasant Road and Garden Bar Road.

### **Study Area Circulation System - Roads**

**Classification.** Under the Placer County General Plan the roads in the study area range in functional class from Rural Arterials to Rural Collectors to local roads.

#### ***Rural Arterials***

Wise Road from Mt Vernon Road to SR 65  
McCourtney Road from the Lincoln city limits to Camp Far West Road

#### ***Rural Collectors***

Fruitvale Road from McCourtney Road to Hungry Hollow Road  
Mt Vernon Road from Joerger Road to Wise Road  
Riosa Road from the Sutter County line to McCourtney Road  
Fowler Road from SR 193 to Fruitvale Road

#### ***Local Roads***

Mt Pleasant Road  
Mears Drive  
Garden Bar Road  
Big Ben Road

**Mt Pleasant Road** is a local east-west road that extends for approximately three miles linking Big Ben Road and Mt Vernon Road. The alignment Mt Pleasant Road follows the rolling terrain of the foothills west of Auburn. The road itself is 20 to 22 feet wide with graveled shoulders of varying width. Placer County's adopted design standard for Mt Pleasant Road calls for 32 feet of pavement (traveled way and shoulders) within a 60 foot right of way with a design speed of 35 mph.

**Mt Vernon Road** is a Rural Collector road that extends easterly from an intersection on Wise Road for about 7 miles into the City of Auburn. Placer County's design standard for Mt. Vernon Road from Wise Road to Joerger Road calls for 32 feet of pavement (traveled way and shoulders) within a 60 foot right of way with a design speed of 35 mph.

**Mears Drive** is a local street that connects the existing portion of Hidden Falls Park with Mt. Vernon Road. This two lane road features 20 feet of pavement and limited shoulders. Placer County's adopted design standard for Mears Drive north of Mt Vernon Road calls for 32 feet of pavement (traveled way and shoulders) within a 60 foot right of way with a design speed of 30 mph.

**Garden Bar Road** is a local road that extends north from an intersection on Fruitvale Road across Mt Pleasant Road along the west side of the proposed project and for approximately three miles to the Nevada County line. The alignment and width of Garden Bar Road varies greatly along its length. In the area of the proposed project the road varies from approximately 15 to 20 feet in width. Shoulders are most often non-existent and horizontal curves with radii as short as 80 feet exist at various locations. Placer County's adopted design standard for Garden Bar Road for 32 feet of pavement (traveled way and shoulders) within a 60 foot right of way with a design speed of 35 mph.

### **Study Area Circulation System - Intersections**

The quality of traffic flow is often governed by the operation of key intersections. The following intersections have been identified for evaluation in this study in consultation with Placer County staff.

The **Garden Bar Road (North) / Mt. Pleasant Road** intersection is a "tee" intersection controlled by a stop sign on the southbound Garden Bar Road approach. The intersection is located on a horizontal curve along Mt Pleasant Road. There are no turn lanes on Mt Pleasant Road at the northern Garden Bar Road intersection.

The **Garden Bar Road (South) / Mt Pleasant Road** intersection is a "tee" intersection controlled by a stop sign on the northbound Garden Bar Road approach. The intersection is located on a horizontal curve along Mt Pleasant Road. There are no turn lanes on Mt Pleasant Road at the southern Garden Bar Road intersection.

### **Standards of Significance: Levels of Service - Methodology**

To assess the quality of existing traffic conditions and provide a basis for analyzing project impacts, Levels of Service were calculated at study area intersections and project driveways. "Level of Service" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment.

The Placer County General Plan governs development in this area of Placer County, and the Community Plan includes Level of Service goals. Policies 3.A.1. thru 3.A.16 under General Plan Goal 3.A are applicable.

According to the General Plan, the minimum level of service (LOS) on rural roadways and at intersections shall be Level of Service C.

Table 1 presents general characteristics associated with each LOS grade.



**TABLE 1**  
**LEVEL OF SERVICE DEFINITIONS**

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Volume / capacity (V/C) < 0.60	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. $0.60 \leq v/c < 0.70$	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. $0.70 \leq V/C < 0.80$	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. $0.80 \leq V.C < 0.90$	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). $0.90 \leq V/C < 1.00$	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. V/C > 1.00	Intersection often blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.
Sources: 2000 <u>Highway Capacity Manual</u> , Transportation Research Board (TRB) Special Report 209.			

**Methodology for LOS at Unsignalized Intersections.** At unsignalized intersections the number of gaps in through traffic, gap acceptance time and corresponding delays for motorists waiting to turn are used for Level of Service analysis. Procedures used for calculating unsignalized intersection Level of Service are as presented the *Highway Capacity Manual, 2000 edition*.

### **Daily Traffic Volumes**

The quality of traffic flow on Placer County roads can also be determined based on the daily traffic volumes and generalized Level of Service thresholds. The Placer County General Plan EIR presents generalized “planning level” daily volume thresholds that can be used to identify operating Levels of Service on streets and highways. These thresholds are re-printed in Table 2.

General Plan threshold do not specifically account for the condition of roads in terms of width and the availability of shoulders. For this analysis is has been assumed that in areas of Rolling and Mountainous terrain Level of Service thresholds could be influenced by these factors. To determine

applicable adjustments, LOS threshold tables employed by other counties were reviewed. The most applicable data is available from the Tuolumne County Transportation Commission (TCTC), and the thresholds employed by that agency specifically address the width of less than standard roads. Applying the adjustments made by TCTC, roads that are 18' wide would have thresholds that were 80% of standard, while the thresholds on roads with pavement width less than 18' would be 66% of standard. The effects of these adjustments are also noted in Table 2.

**TABLE 2  
EVALUATION CRITERIA FOR ROADWAY SEGMENT LEVEL OF SERVICE**

Roadway Capacity Class	Maximum Daily Traffic Volume Per Lane Level of Service				
	A	B	C	D	E
1. Freeway – Level Terrain	6,300	10,620	13,680	17,740	18,000
2. Freeway – Rolling terrain	5,290	8,920	11,650	14,070	15,120
3. Freeway – Mountainous Terrain	3,400	5,740	7,490	9,040	9,720
4. Arterial – High Access Control	6,000	7,000	8,000	9,000	10,000
5. Arterial – Moderate Access Control	5,400	6,300	7,200	8,100	9,000
6. Arterial – Low Access Control	4,500	5,250	6,000	6,870	7,500
7. Rural 2-lane Highway – Level terrain	1,500	2,950	4,800	7,750	12,500
8. Rural 2-lane highway – Rolling terrain	800	2,100	3,800	5,700	10,500
<i>Rural 2-lane - Rolling (<math>\geq 18'</math> of pavement)</i>	<i>640</i>	<i>1,680</i>	<i>3,040</i>	<i>4,560</i>	<i>8,400</i>
9. Rural 2-lane highway – Mountainous Terrain	400	1,200	2,100	3,400	7,000
<i>Rural 2 lane road - Mountainous (<math>\geq 18'</math> of pavement)</i>	<i>320</i>	<i>960</i>	<i>1,680</i>	<i>2,720</i>	<i>5,600</i>
<i>Rural 2 lane road – Mountainous (&lt;18 feet of pavement)</i>	<i>265</i>	<i>795</i>	<i>1,390</i>	<i>2,250</i>	<i>4,635</i>
Source: Placer County General Plan FEIR and KDA from TCTC guidelines					

### **Existing Traffic Volumes and Intersection Levels of Service**

This analysis addresses traffic conditions occurring during peak weekday hours. Peak hour traffic counts were conducted in April 2007 during the morning (i.e., 7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak hours. The highest one-hour volume observed during each two hour period was employed for this analysis. The results of these traffic counts are presented in Figure 3.

Table 3 presents current peak hour Level of Service at the study area intersections. As shown, all study intersections currently operate at LOS C or better.

An additional measure of the quality of traffic flow is the extent to which the traffic volumes at these intersections meet warrants for signalization. None of the unsignalized study intersections carry volumes satisfying warrants during either the a.m. or p.m. peak hour. Based on this information, traffic signals are not judged to be needed at this time.

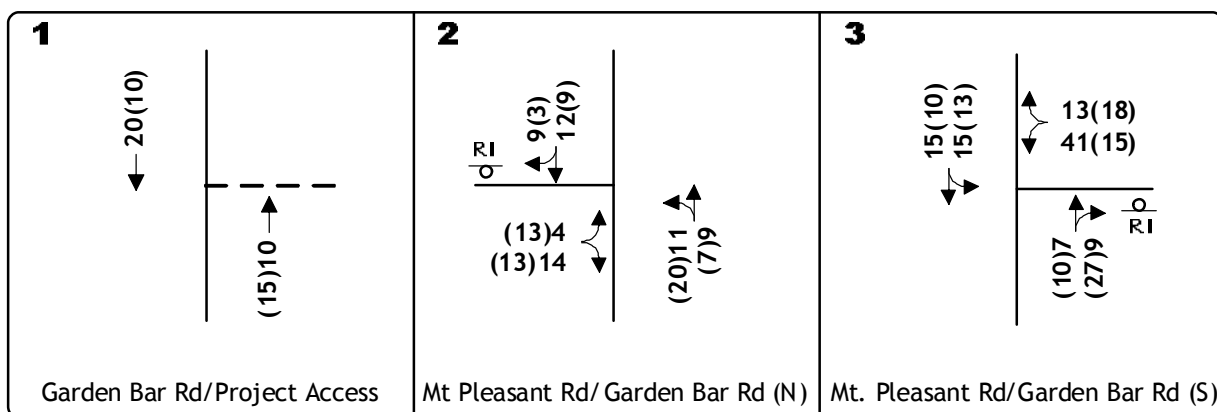
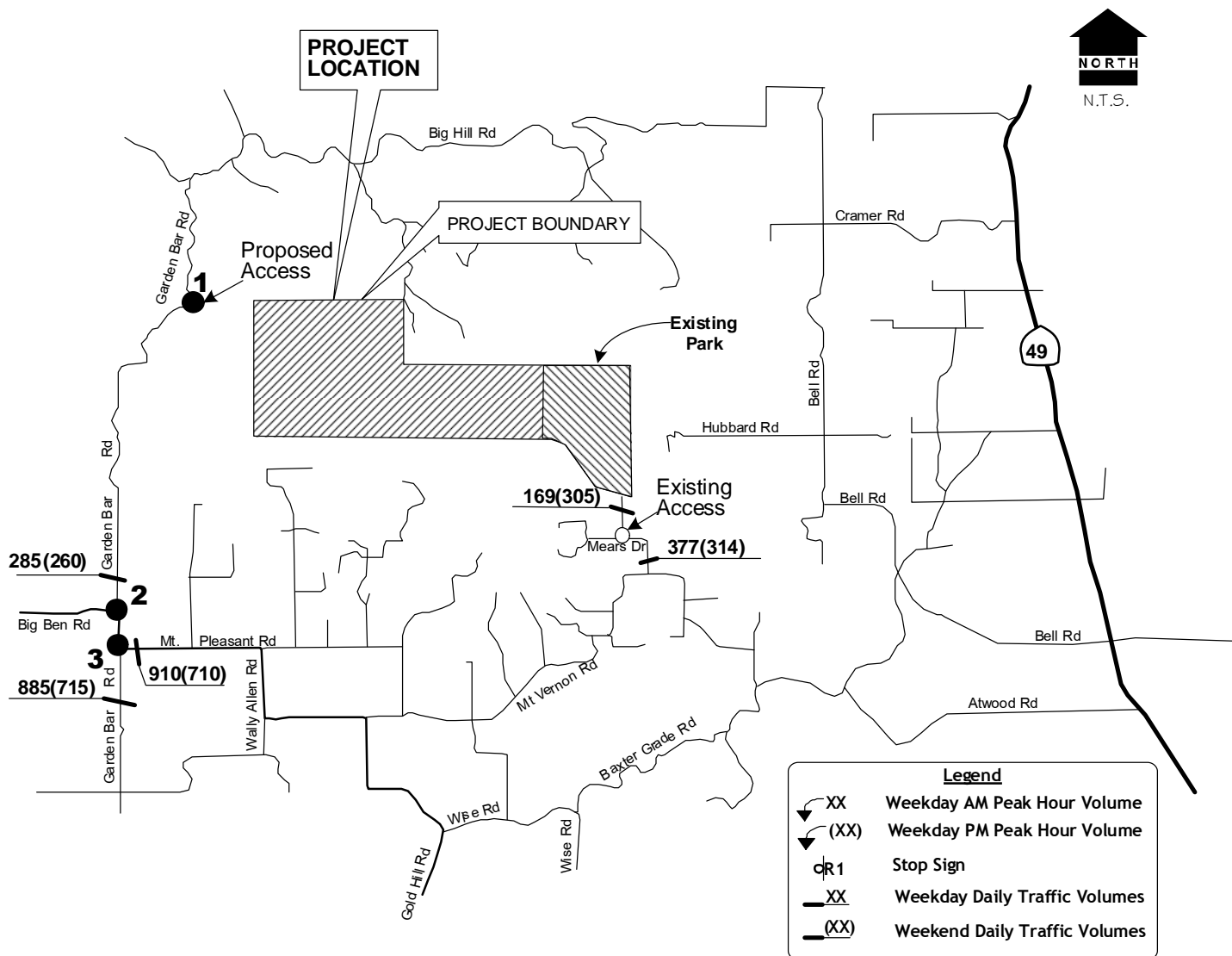


**TABLE 3  
EXISTING INTERSECTION LEVEL OF SERVICE**

Intersection	Control	Weekday				Traffic Signal Warrants Met?	
		A.M. Peak Hour (7:00 to 9:00 a.m.)		P.M. Peak Hour (4:00 to 6:00 p.m.)			
		LOS	Average Delay (sec's per vehicle)	LOS	Average Delay (sec's per vehicle)	a.m. peak hour	p.m. peak hour
Mt Pleasant Road / Garden Bar Road (N) EB left turn SB left+right turn	SB Stop					No	No
		A	7.3 sec	A	7.3 sec		
		A	8.7 sec	A	8.8 sec		
Mt Pleasant Road / Garden Bar Road (S) EB left turn NB left+right turn	NB Stop					No	No
		A	7.4 sec	A	7.3 sec		
		A	8.9 sec	A	8.7 sec		

### **Existing Daily Traffic Volumes and Levels of Service**

Current daily traffic volumes were counted on roads near the project in April 2007. Traffic counts were conducted over a seven day period and included both weekday and weekend volumes. The average volume for the five weekdays and the average of the two weekend days are reported in Table 4.



**TABLE 4**  
**EXISTING DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE**

Road	From	To	Class	Pavement	Weekday		Weekend	
					Daily Volume	Level of Service	Daily Volume	Level of Service
Garden Bar Rd (N)	Mt Pleasant Rd	access	Mountainous Rural	<18'	285	B	260	A
Mt Pleasant Rd	Big Bend Rd	Garden Bar Rd (N)	Rolling Rural	>18'	375	A	310	A
Mt Pleasant Road	Garden Bar Rd (S)	Wally Allen Rd	Rolling Rural	>18'	910	B	710	B
Garden Bar Rd (S)	Mt Pleasant Road	Wise Rd	Rolling Rural	>18'	885	B	715	B
Mears Road	Mt Pleasant Road	Mears Place	Rolling Rural	>18'	377	A	314	A

Under the thresholds suggested by the Placer County General Plan with adjustments for roadway width as noted, the Level of Service on study area roads would range from LOS A to LOS B. This evaluation assumes the winding alignment of Garden Bar Road north of Mt. Pleasant Road should be classified as “mountainous”, while other area roads are in “rolling” terrain.

### **Other Evaluation Criteria**

**Left Turn Channelization.** The American Association of State Transportation and Highway Officials (AASHTO) has identified guidelines for the installation of left turn lanes in their publication *A Policy on Geometric Design of Highways and Streets*. These guidelines, which are presented in their Exhibit 9-75 bases the need for a left turn lane on the volume of traffic on the mainline road and the relative percentage of that traffic that turns.

Left turn lanes rarely exist on local roads at intersections near the project. Current volumes at the Mt Pleasant Road / Garden Bar Road intersections fall below guidelines for left turn channelization.

Analysis of the need for left turn lanes at the project’s access on Garden Bar Road is a part of the impact evaluation. That evaluation will also consider the relationship between left turn access and sight distance along Garden Bar Road.

**Minimum Sight Distance.** Placer County has established minimum sight distance standards for intersections onto County roads. These standards generally conform to Caltrans requirements for corner sight distance and are summarized in Plate R-17 of the Placer County Design Standards. The minimum sight distance required for a 25 mph design is 250 feet and for a 35 mph design is 385 feet, while the required distance for 55 mph is 605 feet. The adopted Placer County design speed for Mt Pleasant Road is 35 mph. This suggests that sight distance of 385 feet (35 mph) should be provided.

Development of a new access without adequate sight distance would constitute a potential safety impact.

Available sight distance was reviewed at key locations along the roads that will provide access to the project site. The sight distance at the two Garden Bar Road intersections on Mt Pleasant Road satisfies a 35 mph design.

**Garden Bar Road Design Speed.** Because much of Placer County’s rural circulation system has evolved over the years, there are many locations where roadways fail to meet current design standards for horizontal or vertical alignment, shoulder width, etc. On Garden Bar Road, the primary existing design deficiencies are pavement width and the length of the radius of various horizontal and vertical curves. Technically, bringing local roads up to current design standards would require consistently lengthening curve radii to 35 mph design. There are many locations on the current alignment of Garden Bar Road that do not meet this design speed, as acknowledged in the Psomas Engineering evaluation of the road.

### **Pedestrian / Bicycle / Equestrian Facilities**

Dedicated pedestrian and bicycle facilities are limited in this area of Placer County. The Placer County Regional Bikeway Plan (2002) notes the location of existing and planned bicycle facilities in the incorporated and unincorporated areas of Placer County. There are no designated facilities in the immediate area of the proposed project.

The existing portion of Hidden Falls Regional Park provides trails that are used by equestrians, recreational bicyclists and pedestrians. However these users typically haul their horses or mountain bicycles to the site.

### **Transit Facilities**

Placer County Transit provides bus service in Placer County but not to the immediate area of this project. The nearest local service is the Taylor Road shuttle which has a stop in Penryn and provides connections to other local and regional transit services. Dial-a-Ride service is available to residents in the area of the proposed project.

## PROJECT IMPACTS

The impacts associated with the proposed project have been evaluated based on the amount of traffic generated and added to study area roads

### Project Traffic Characteristics

The proposed project is expected to effect the local environment in two ways. First, use of the park will generate users who are expected to drive to the site, and automobile, truck and bus traffic will be added to the rural roads that provide access to the site. The amount and direction of project traffic is expressed in terms of the projects potential *Trip Generation and Distribution*. Secondly, the project will be accompanied by improvements to Garden Bar Road between the project access and Mt Pleasant Road.

**Trip Generation.** The amount of new traffic associated with development projects is typically forecasted using information developed from recognized national sources. The Institute of Transportation Engineers (ITE) publication *Trip Generation, 7<sup>th</sup> Edition* is a source recognized by Placer County and Caltrans.

ITE data for the category of Regional Parks was reviewed. The reference notes that a wide variety of facilities and activities can be found in regional parks, and as a result, trip generation rates vary greatly and statistical correlation is poor. Table 5 identifies the average daily trip generation rates reported by ITE, as well as the range of rates reported for the sample data. Review of this data suggests that the ITE sample was drawn for observation of active parks, such as Elk Grove Regional Park and Maidu Park in Roseville which provide facilities for organized active events (i.e., sports fields). These rates are not judged to be applicable to the proposed project.

**TABLE 5  
TRIP GENERATION RATES**

Land Use	Quantity	Trip Generation						
		Weekday Daily			Saturday			
		Average	Low	High		Average	Low	High
Regional Park	Acre	4.57	0.92	39.07		5.65	1.88	43.04

To provide a greater understanding of probable park use traffic counts were conducted at the existing park access off of Mears Drive. These counts were made during January through March and represent varying conditions in terms of weather. The counts conducted in January reflect colder weather and intermittent rain. The counts made in March represent clear weather conditions. Because these mechanical counts are based on the number of axels across pneumatic hoses, trailers towed to the site would be registered as part of an additional vehicle. Thus these counts may overstate the actual vehicle count slightly.

**TABLE 6**  
**TRAFFIC COUNTS AT EXISTING HIDDEN FALLS PARK ACCESS**

Date	Day of week	Daily Volume (in + out)	Peak Hour Volume (in+out)			
			AM		PM	
			(7:00 to 9:00)	Highest Hour	(4:00 to 6:00)	Highest Hour
1/17	Thursday	-			11	11
1/18	Friday	97	4	8	18	18
1/19	Saturday	206	-	14	-	47
1/20	Sunday	171	-	22	-	32
1/21	Monday	96	1	17	7	21
1/22	Tuesday	65	3	9	6	14
1/23	Wednesday	43	2	5	5	10
1/24	Thursday	38	3	3	1	10
1/25	Friday	38	1	6	3	10
1/26	Saturday	91	-	15	-	19
1/27	Sunday	48	-	8	-	8
1/28	Monday	77	2	19	4	11
1/29	Tuesday	32	3	4	1	9
1/30	Wednesday	68	6	9	7	9
2/28	Thursday	92	3	9	13	16
2/29	Friday	169	5	24	15	29
3/1	Saturday	193	-	22	-	31
3/2	Sunday	305	-	39	-	51
3/3	Monday	95	1	14	15	16
3/4	Tuesday	148	18	23	17	18
3/5	Wednesday	124	7	18	13	24
3/6	Thursday	76	7	11	8	13
<b>Highest Observation</b>	<b>Weekday</b>	<b>169</b>	<b>18</b> <b>(11 in 7 out)</b>	<b>24</b>	<b>18</b> <b>(6 in 12 out)</b>	<b>29</b>
<b>Highest Observation</b>	<b>Weekend</b>	<b>305</b>	<b>-</b>	<b>39</b>	<b>-</b>	<b>51</b>

As shown in Table 6, the highest daily volume observed on a weekday was a count of 169 vehicles in and out. The highest daily volume on a weekend totaled 305 vehicles. The highest volume observed during weekday peak hours was 18 vehicles during both the a.m. and p.m. peak hour.

***Trips Associated with Regular Use.*** The potential increase in activity at the site due to

the new project will be based on factors such as the length of new trails available and the configuration of the trail system. It is expected that longer trails will result in participants spending more time on the trail. Park staff suggests that with the implementation of the project, overall park use could increase to 2 to 2½ times the existing usage.

For this analysis it has been assumed that the project will result in additional traffic that is equal to 1½ times the highest current observation. Thus, as noted in Table 7 the project will add 255 weekday and 460 weekend trips to the study area street system. During the weekday commute hours the project could add 28 trips in the a.m. peak hour and 27 trips in the p.m. peak hour. During the highest hour on a weekend the project could add 77 trips to the area street system

**TABLE 7  
TRIP GENERATION FORECAST**

Land Use	Trip Generation							
	Weekday					Weekend		
	Daily	AM		PM		Daily	Peak Hour	
		In	Out	In	Out		In	Out
Hidden Falls Regional Park	255	17	11	9	18	460	35	42

**Special Events.** It is recognized that the park could host organized special events that would attract guests in numbers beyond those expected for regular public use. Such events could include equestrian groups, high school cross country, etc. Project proponents suggest that up to 200 persons could be at the site at one time for these events.

The amount of vehicular traffic associated with special events and the distribution of that traffic would vary based on the nature of the event. For example, local high school cross country meets could bring together several teams, with participants and spectators totaling up to 200 persons. However, high school students would likely be bussed to the site. As a result, a 200 person event of this type would likely be served by 6 to 8 busses and perhaps 12 to 20 automobiles. The trip generation for this event would be less than that forecast for regular use of the site.

**Trip Distribution.** Having determined the number of trips that are expected to be generated by the project, it is necessary to identify the directional distribution of project-generated traffic. Based on discussions with park staff we understand that today the park caters primarily to western Placer County residents living in an area bounded by SR 49 on the east, SR 65 on the west and Rocklin –Roseville urban area to the south.

2000 Census tract population information for the districts surrounding the park site were reviewed for use as a basis for suggesting the regional distribution of project trips. Excluding urbanized Roseville and Rocklin, the study area would include Lincoln-Sheridan, Loomis. Penryn-Horseshoe Bar, Newcastle-Ophir, Auburn and north Auburn.



**TABLE 8**  
**TRIP DISTRIBUTION ASSUMPTIONS**

Direction	Destination	Routes	Percentage of total
Northwest	Sheridan	Big Ben Road to McCourtney Road	15%
West	Lincoln	Garden Bar Road to Wise Road	17%
Northeast	North Auburn	Mt Pleasant Road, Mt Vernon Road to Joerger Road	22%
East	Auburn	Mt Pleasant Road to Mt Vernon Road	13%
Southeast	Newcastle / Penryn	Mt Pleasant Road to Wise Road and Gold Hill Road	9%
Southwest	Loomis , Rocklin	Garden Bar Road, Fowler Road to SR 193	24%
Total			100%

**Project Trip Assignment.** The assignment of project trips to the study area street system will reflect the location of planned parking facilities and the travel time between those facilities and regional trips destinations. Because planned trails can be accessed from both the existing parking facilities off of Mears Drive and via the new parking off of Garden Bar Road, the trips attracted to the facilities may make use of both entrances. To present a “worst case” evaluation of the impacts of this project to Garden Bar Road, 100% of the new traffic has been assumed to use the new entrance under the “existing plus project” conditions. Figure 4 identifies the assignment of project traffic to the local street system via the Garden Bar Road access.

However, if the project proceeds in phases as anticipated, initial use of the new park may occur before Garden Bar Road access is developed. Under those conditions a portion of the trip generation would occur and all of the traffic increase would use Mears Drive.

### **Planned Roadway Improvements**

Development of Hidden Falls Regional Park will be accompanied by phased improvements to Garden bar Road in the area north of Mt Pleasant Road to the proposed access. The extent of these improvements is described in the *Hidden Fall Regional Park Traffic Safety Study (2007)*.

**Phased Improvements.** Under the phased improvements program, public access via Garden Bar Road would initially be prohibited as no improvements to that road would have been made under Phase 1. Under Phase 2 Garden Bar Road would be improved to accommodate private automobiles and the access would be opened to the public. However, access for horse trailers would be prohibited, and vehicles with trailers would continue to use the Mears Drive access. Under Phase 3 vehicles with trailers would be permitted to use the Garden Bar Road staging area.

**Phase 2 Work.** The following improvements are part of Phase 2 work:

- An access road would be constructed between Garden Bar Road and the park property
- Garden Bar Road would be widened to an all weather 18 foot wide paved section
- Substandard vertical curves would be lengthened at five locations
- Warning signs would be installed at locations along Garden Bar Road to warn of tight radius curves that are not to be improved
- Guide signs directing the public to the park would be installed

**Phase 3 Work.** Under this phase Garden Bar Road would be subject to additional improvements:

- The road would be further widened to provide a minimum width of 20' all weather surface
- The horizontal alignment of the northern portion of the road would be improved to correct current deficiencies

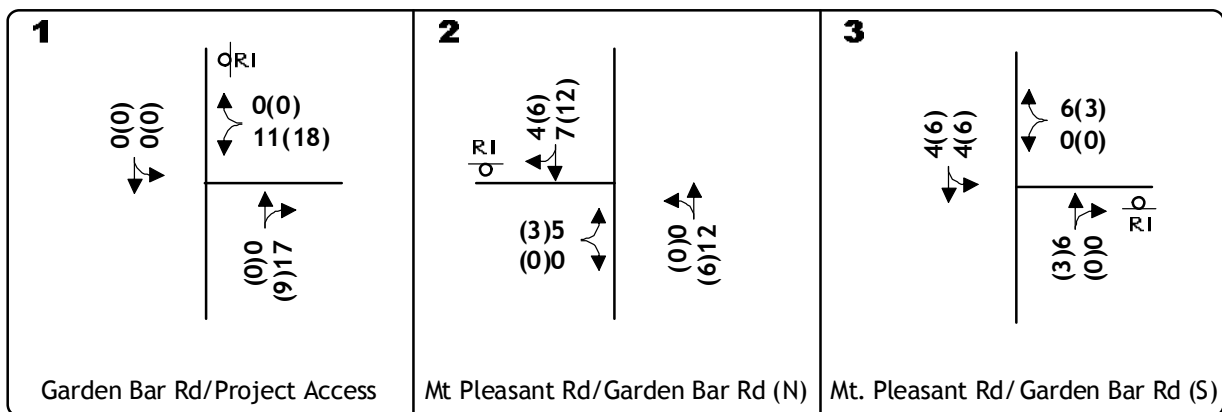
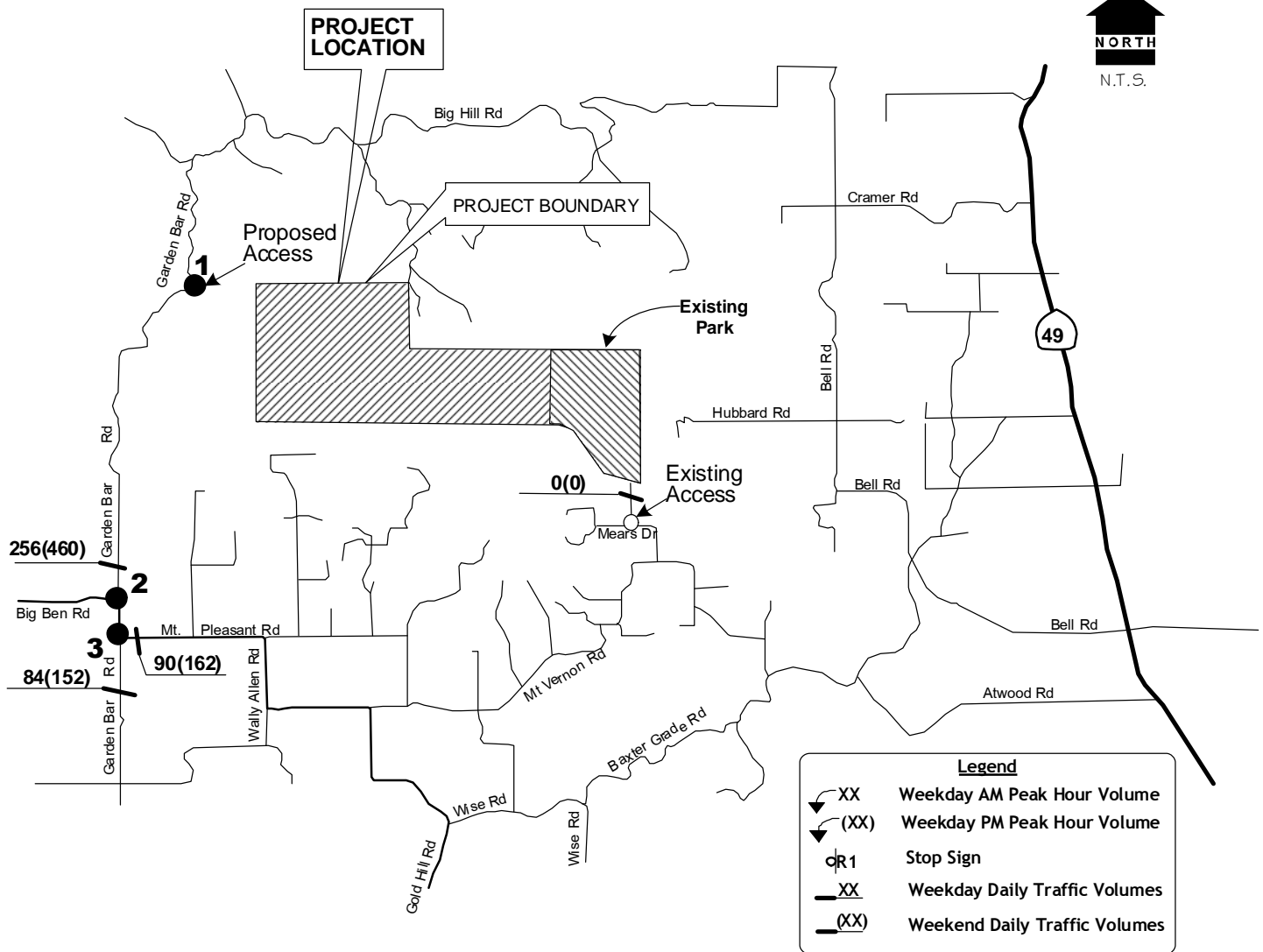
### **Existing Plus Project Traffic Conditions and Levels of Service**

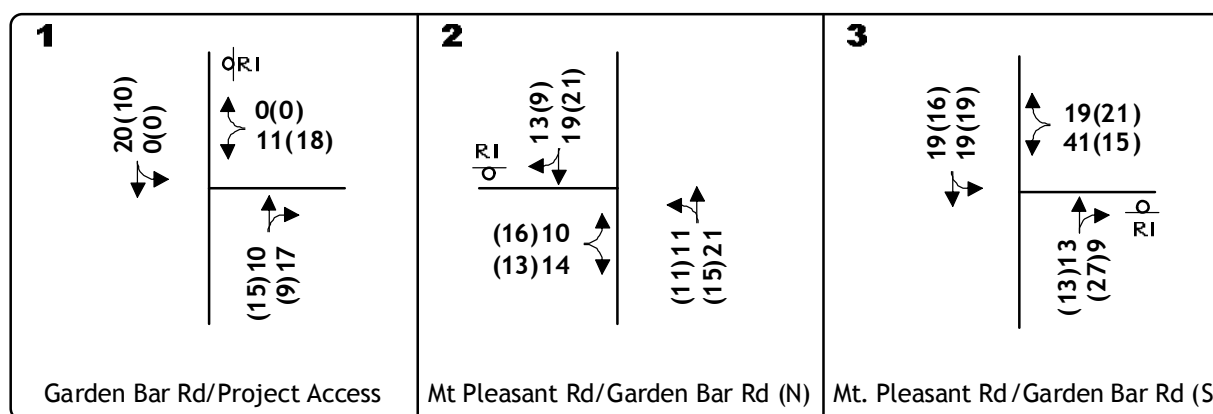
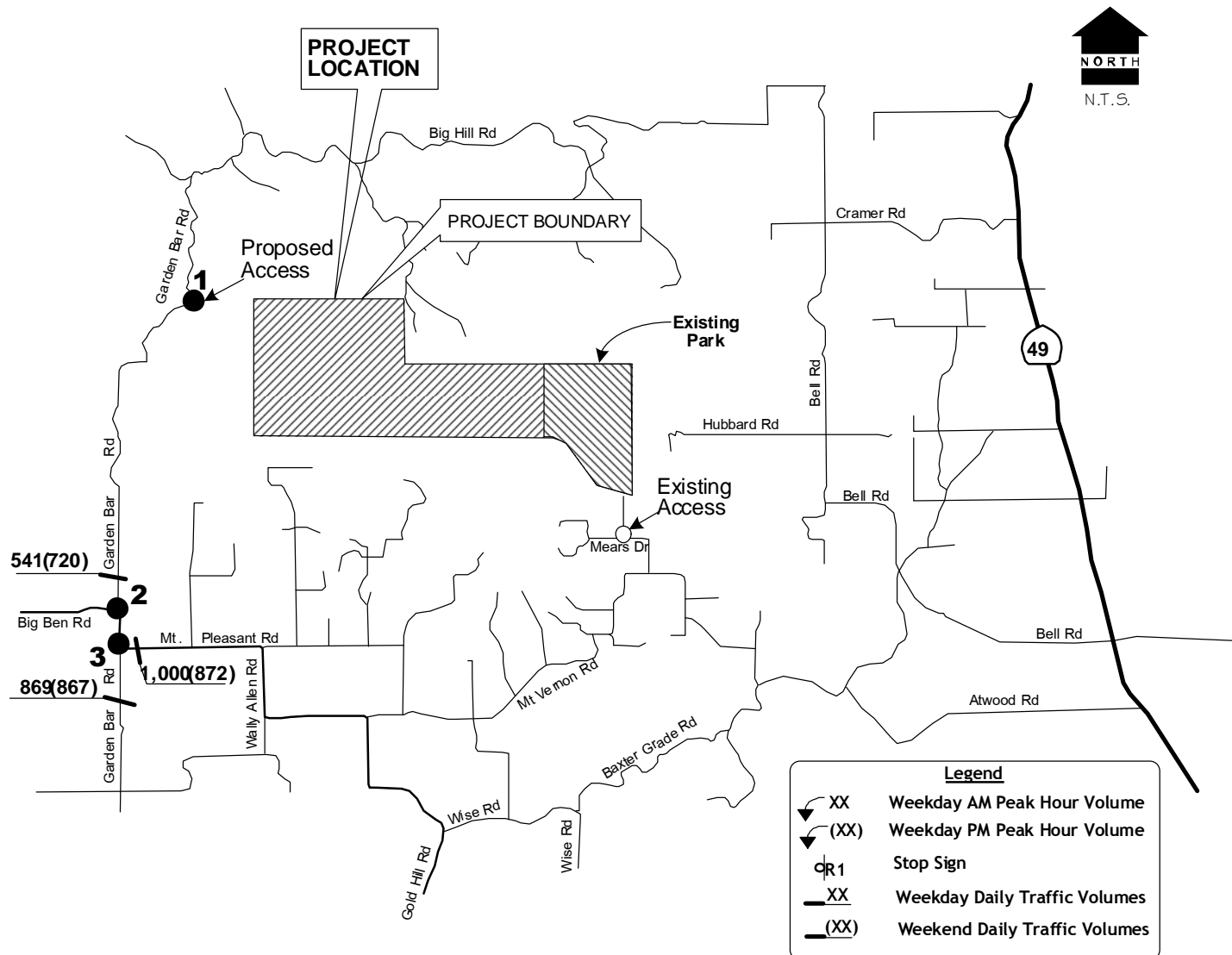
Figure 5 superimposes project trips onto the current background traffic volumes to create the “Existing plus Project” condition assuming all project traffic uses the Garden Bar Road access.

**Intersection Level of Service.** Table 9 identifies the Level of Service projected at the project’s access onto Garden Bar Road and compares the existing and “plus project” Levels of Service at the other study intersections. As shown, while the average length of delays may increase slightly, the addition of project traffic will have a negligible effect on Levels of Service occurring during peak hours at study intersections. LOS “A” conditions will remain. Review of projected volumes reveals that the addition of project traffic does not result in any change to previous conclusions regarding the need for traffic signals.

To provide a “worst case” assessment of Level of Service impacts, conditions accompanying the weekend peak hour of the facility were evaluated. This assessment was conducted by superimposing weekend peak hour traffic onto observed weekday a.m. traffic volumes. As summarized in the Appendix, study intersection Levels of Service remain at LOS A at this higher traffic volume level.

**Existing Daily Traffic Volumes and Levels of Service.** Table 10 identifies the daily traffic volumes added to study area roads if all the new traffic associated with the project chose to use Garden Bar Road access. As indicated, while “worst case” assumptions yield increases in traffic volumes that are similar in magnitude to current volume counts, resulting total volumes do not result in Levels of Service in excess of minimum Placer County standards (i.e., LOS C).





**TABLE 9  
EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE**

Intersection	Control	Weekday								Traffic Signal Warrants Met?	
		AM Peak Hour (7:00 to 9:00 a.m.)				PM Peak Hour (4:00 to 6:00 p.m.)					
		Existing		Existing Plus Project		Existing		Existing Plus Project			
		LOS	Average Delay (sec's per vehicle)	LOS	Average Delay (sec's per vehicle)	LOS	Average Delay (sec's per vehicle)	LOS	Average Delay (sec's per vehicle)	AM Peak Hour	PM Peak Hour
Garden Bar Rd / Access SB left turn WB left+right turn	WB Stop	-	-	-	-	-	-	-	-	No	No
Mt Pleasant Road / Garden Bar Road (N) EB left turn SB left+right turn	SB Stop	A	7.3 sec	A	7.3 sec	A	7.3 sec	A	7.3 sec	No*	No
		A	8.7 sec	A	8.8 sec	A	8.8 sec	A	8.9 sec		
Mt Pleasant Road / Garden Bar Road (S) EB left turn NB left+right turn	NB Stop	A	7.4 sec	A	7.4 sec	A	7.3 sec	A	7.3 sec	No*	No
		A	8.9 sec	A	9.1 sec	A	8.7 sec	A	8.8 sec		

**TABLE 10**  
**EXISTING PLUS PROJECT DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE**

Road	From	To	Class	Weekday					Weekend				
				Existing		Existing Plus Project			Existing		Existing Plus Project		
				Daily Volume	LOS	Daily Volume		LOS	Daily Volume	LOS	Daily Volume		LOS
						Project	Total				Project	Total	
Project Access via Garden Bar Road													
Garden Bar Rd (N)	Mt Pleasant Rd	access	Mountainous Rural	285	A	256	541	B	260	A	460	720	B
Mt Pleasant Rd	Big Bend Rd	Garden Bar Rd (N)	Mountainous Rural	375	A	82	457	B	310	A	148	458	B
Mt Pleasant Road	Garden Bar Rd (S)	Wally Allen Rd	Mountainous Rural	910	B	90	1,000	C	710	B	162	872	B
Garden Bar Rd (S)	Mt Pleasant Road	Wise Rd	Mountainous Rural	885	B	84	869	B	715	B	152	867	B
Interim Access via Mears Drive Only													
Mears Road	Mears Place	Mt. Vernon Road	Mountainous Rolling	377	A	255	632	A	314	A	460	774	B

## **Safety / Access Evaluation**

**Sight Distance at Project Access.** The available sight distance at the proposed project access was determined through a field review and compared to applicable Placer County standards.

As noted earlier, the adopted design speed on Garden Bar Road is 35 mph. Under Placer County guidelines this speed requires sight distance of 385 feet (Plate 17). This requirement exceeds the minimum safe stopping sight distance established by Caltrans for 35 mph (250 feet).

The planned north access is located along a tight curve on Garden Bar Road. The existing curve (80' radius) is to be replaced by a longer curve (200' radius).

**Design Standards for balance of Garden Bar Road.** The planned improvements to Garden Bar Road are presented in the *Traffic Safety Study for Garden Bar Road*. The improvements are intended to provide a minimum 18' traveled way along with horizontal and vertical curve radii that are applicable to 35 mph and 25 mph are planned in the areas south and north of station 46+00, respectively. While recognizing that the 25 mph design does not meet the County's requirements for a Rural Secondary Road, the Safety Study notes:

*Due to the nature of the existing roadway the standard for a rural secondary roadway is not considered appropriate for this setting and would result in unnecessary widening of the existing road and change in character of the roadway given the existing and future use levels. The County Fire Department's requirement is an 18 ft wide all-weather surface (see Figure 4) and is considered appropriate for Phase 3.*

The key safety issue to be considered in this situation is consistency with the conditions on the overall circulations system. Hypothetically, a safety problem would exist if portions of a street are designed to a substantially lower design speed than others and motorists are surprised to encounter reduced conditions. In this case, the results of the overall improvement program envisioned in the Safety Study will be consistent with the quality of traffic flow on the balance of Garden Bar Road north of Mt Pleasant Road.

Thus, while many features of the improvement project do not conform to adopted County standards for minimum horizontal and vertical curves, with proper signage development of the planned improvements would improve safety and not exacerbate existing hazards.

One location that is of concern is the site access onto Garden Bar Road itself. Even with improvements, the access is located on a tight curve and sight distance could be limited. Advance signing in both directions noting the presence of the park access should be part of the final improvements project, and the need for an all-way stop should be reviewed as construction plans are prepared.

**Need for Left Turn Lane into the Project Site.** With development of the project a limited number of left turns will be made into the site from Garden Bar Road, and the number of left turns at other study intersections will increase slightly. However, resulting traffic volume would fall below the

thresholds presented in AASHTO guidelines. Based on forecast volumes left turn lanes would not be required at either intersection.

### **Impacts to Alternative Transportation Modes**

Development of the project could have a minor incremental impact on the demand for transit services in this area of Placer County. However, the demands associated with this project would not be sufficient to require creating fixed route service. While fixed route service is not available, available Dial-a-Ride service is available. Based on the relative demand and available services, the project's impacts to transit are not judged to be significant.

Development of the project may incrementally increase the number of pedestrians and bicyclists using rural Placer County roads. Due to the distances involved most bicycle and pedestrian travel in this area is recreational in nature, and these modes are not regular commute options. While the project will provide on-site opportunities for cyclists, the trails are suitable for mountain bikes, rather than road cycles. Thus, it is unlikely that cyclists wishing to use the project's trails would choose to ride to the site.

### **Mitigations for "Existing Plus Project" Impacts**

With implementation of planned improvements, development of the project alone does not result in traffic conditions in excess of adopted Level of Service standards. Thus, no mitigation measures are immediately required to maintain County Level of Service standards.

Installation of the planned improvements will result in a local circulation system which is better than that which exists today and is commensurate with the overall flow of traffic on Garden Bar Road. Elements of the plan do not meet minimum Placer County standards for 35 mph design. Modifications to the plan to achieve 35 mph design could be considered, but development of larger radius horizontal and vertical curves would result in considerable disruption to the areas along the roadway and would require substantial right of way acquisition. At the traffic volume levels anticipated public safety will not be compromised by the project and additional improvements to mitigate safety issues are not needed.



## CUMULATIVE IMPACTS

The impacts of developing the proposed project have also been considered within the context of long-term future traffic conditions in this area of Placer County. The cumulative analysis accounts for future regional traffic growth as projected from review of historic traffic count records on study area roads.

### Year 2025 Cumulative Traffic Conditions

**Traffic Volume Forecasts.** Long term traffic volume forecasts developed from Placer County's recently updated Year 2025 regional travel demand forecasting model and the SACOG regional traffic model were considered as possible bases for the cumulative analysis. However, review of the configuration of each traffic model revealed that each lacked the detail necessary to develop forecasts for roads such as Garden Bar Road and Mt Pleasant Road.

**Historic Traffic Volume Records.** Placer County Department of Public Works has intermittently collected daily traffic volume counts for rural roads. These counts go back as far as 1971 and provide a general indication of changes in traffic volumes over that time period. This data, along with the new traffic counts made for this study have been used through regression analysis to estimate the volume of traffic likely to occur on study area roads in the year 2027.

**TABLE 11  
BACKGROUND TRAFFIC GROWTH**

Road	Post Mile	Location	Weekday Daily Volume			
			1971	1978	2007	2027
Garden Bar Rd	2.42	North of Mt. Pleasant Road	191	-	285	500
	1.14	South of Mt Pleasant Road	-	632	885	1,110
Mt Pleasant Rd	0.002	West of Garden Bar Road	-	266	385	540
	2.10	East of Garden Bar Road	-	361	910	1,125

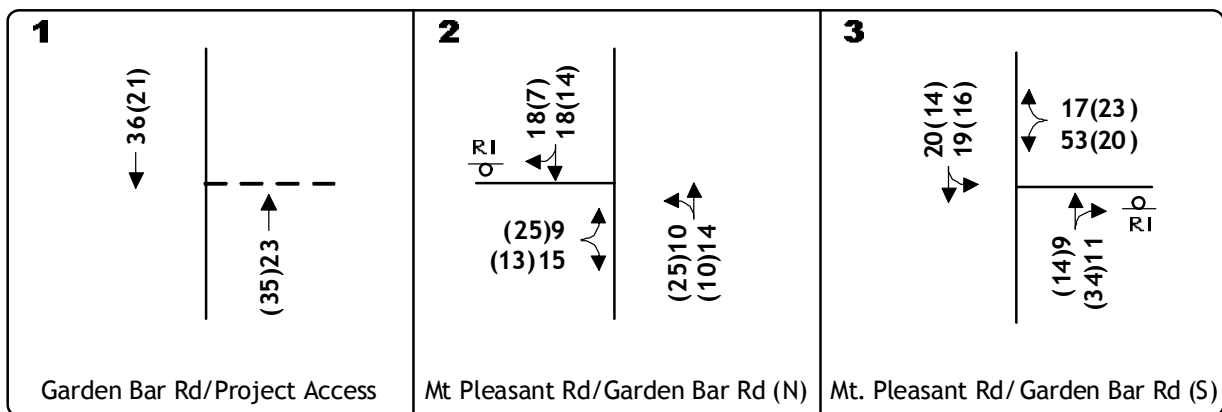
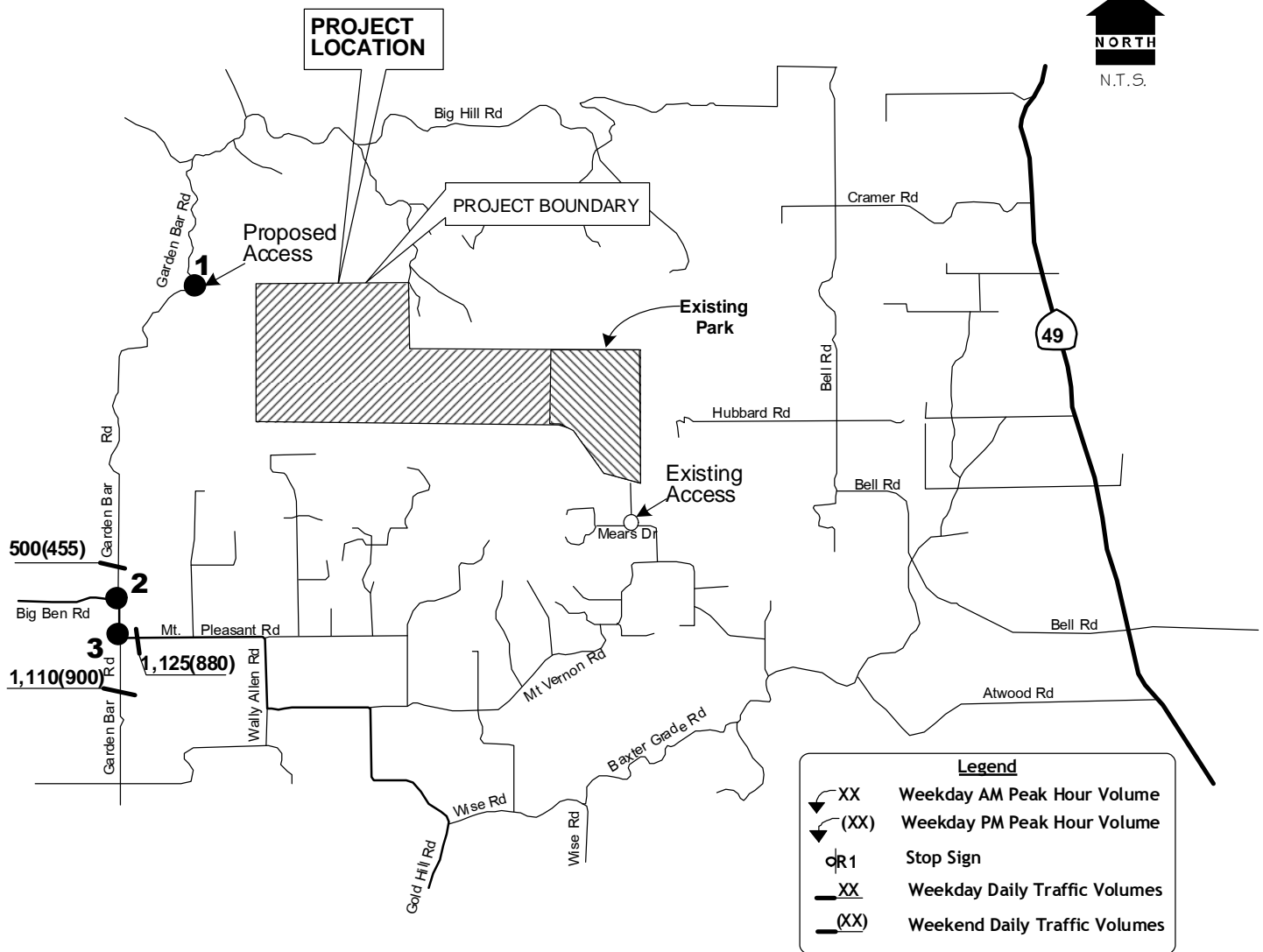
These daily traffic volumes have been employed to interpolate weekend traffic volumes and weekday peak hour intersection turning volumes, as noted in Figure 6.

**Future Improvements.** There are no roadway improvements contemplated in the immediate vicinity of Hidden Falls Park.

**Cumulative Impacts to County Roads.** As noted in Table 12, with and without the proposed project the volume of traffic on most County roads will remain within the LOS C threshold identified in the General Plan. Mitigations to address the capacity of these roads are not needed.

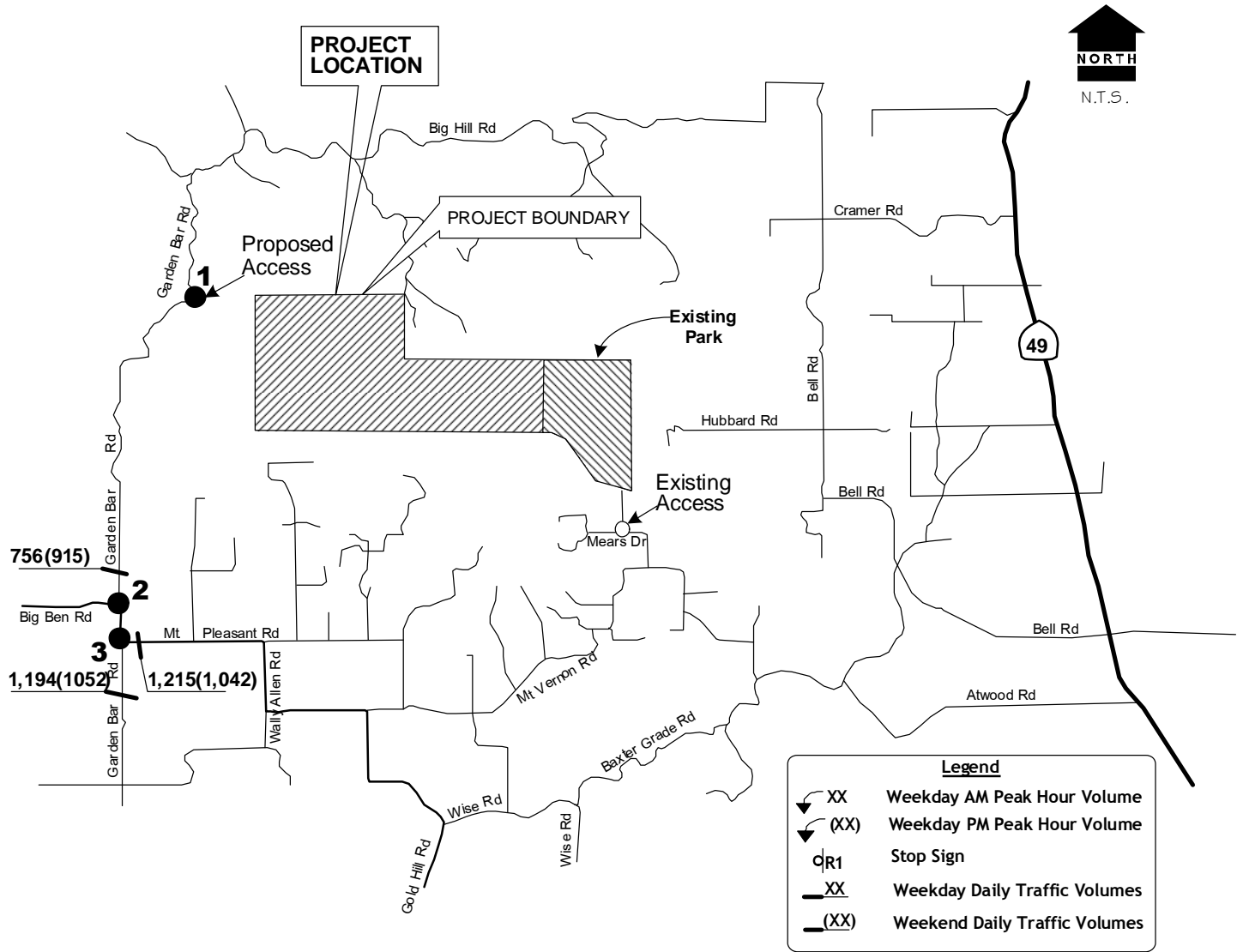
**Peak Hour Intersection Levels of Service.** Current peak hour volumes were adjusted to future intersection turning movement volumes based on the relative growth rates implied by daily traffic volumes using methods described in the Transportation Research Board's (TRB's) NCHRP Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design* (refer to Appendix). Figure 6 presents baseline year 2027 cumulative traffic volume forecasts, while Figure 7 presents "Year 2027 Plus Project" traffic volumes that were developed by superimposing project trip onto the background condition. As noted in Table 13 all intersections will continue to operate at a Level of Service that meets Placer County's minimum standards (i.e. LOS C or better).

Table 13 presents peak hour Levels of Service at study intersections. As shown, all study intersections will meet adopted Level of Service standards.



YEAR 2027 NO PROPECT  
TRAFFIC VOLUMES  
AND LANE CONFIGURATIONS

*KD Anderson & Associates, Inc.*  
Transportation Engineers



<p><b>1</b></p> <p>36(21) 0(0)</p> <p>QR1</p> <p>0(0) 11(18)</p> <p>(35)23 (9)17</p> <p>Garden Bar Rd/Project Access</p>	<p><b>2</b></p> <p>22(13) 25(26)</p> <p>QR1</p> <p>(28)14 (13)15</p> <p>(25)10 (16)26</p> <p>Mt Pleasant Rd/Garden Bar Rd (N)</p>	<p><b>3</b></p> <p>24(20) 23(22)</p> <p>23(26) 53(20)</p> <p>(17)15 (34)11</p> <p>QR1</p> <p>Mt. Pleasant Rd/Garden Bar Rd (S)</p>
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**TABLE 12**  
**YEAR 2027 CUMULATIVE DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE**

Road	From	To	Class	Weekday					Weekend				
				2027		2027 Plus Project			2027		2027 Plus Project		
				Daily Volume	Level of Service	Daily Volume		Level of Service	Daily Volume	Level of Service	Daily Volume		Level of Service
						Project	Total				Project	Total	
Garden Bar Rd (N)	Mt Pleasant Rd	access	Mountainous Rural	500	A	256	756	B	455	A	460	915	B
Mt Pleasant Rd	Big Bend Rd	Garden Bar Rd (N)	Mountainous Rural	540	A	82	622	B	435	A	148	583	B
Mt Pleasant Road	Garden Bar Rd (S)	Wally Allen Rd	Mountainous Rural	1,125	B	90	1,215	C	880	B	162	1,042	B
Garden Bar Rd (S)	Mt Pleasant Road	Wise Rd	Mountainous Rural	1,110	B	84	1,194	B-C	900	B	152	1,052	B

**TABLE 13**  
**CUMULATIVE YEAR 2027 INTERSECTION LEVELS OF SERVICE**

Intersection	Control	Weekday								Traffic Signal Warrants Met?	
		AM Peak Hour (7:00 to 9:00 a.m.)				PM Peak Hour (4:00 to 6:00 p.m.)					
		Existing		Existing Plus Project		Existing		Existing Plus Project			
		LOS	Average Delay (sec's per vehicle)	LOS	Average Delay (sec's per vehicle)	LOS	Average Delay (sec's per vehicle)	LOS	Average Delay (sec's per vehicle)	AM Peak Hour	PM Peak Hour
Garden Bar Rd / Access SB left turn WB left+right turn	WB Stop	-		- A	- 9.0 sec	-		- A	- 8.9 sec	No	No
Mt Pleasant Road / Garden Bar Road (N) EB left turn SB left+right turn	SB Stop	A A	7.3 sec 8.8 sec	A A	7.3 sec 8.9 sec	A A	7.4 sec 9.0 sec	A A	7.4 sec 9.1 sec	No*	No
Mt Pleasant Road / Garden Bar Road (S) EB left turn NB left+right turn	NB Stop	A A	7.4 sec 9.1 sec	A A	7.4 sec 9.3 sec	A A	7.3 sec 8.8 sec	A A	7.4 sec 8.9 sec	No*	No

## **APPENDIX**

## **APPENDIX C**

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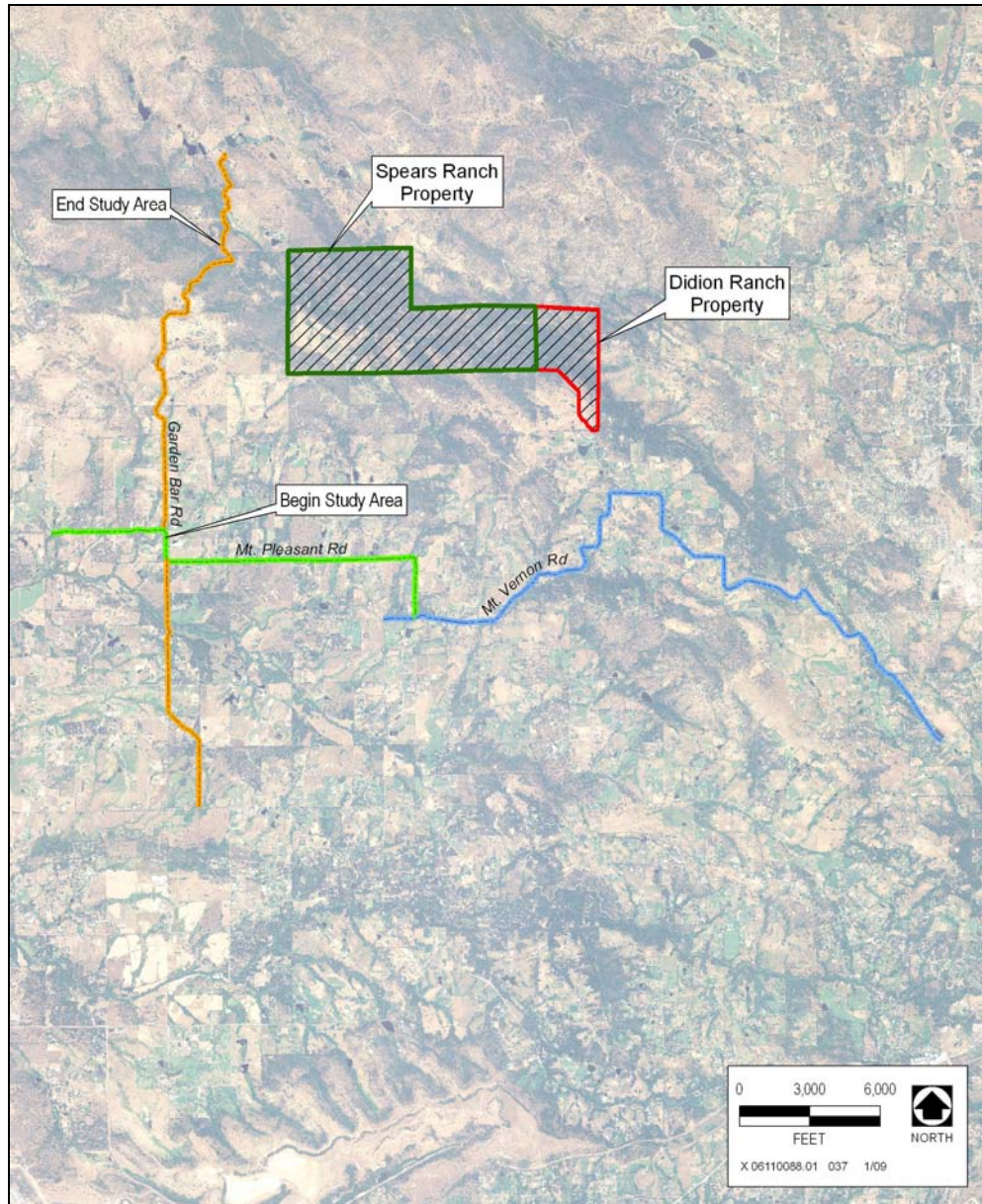
Traffic Safety Report





## HIDDEN FALLS REGIONAL PARK PROJECT

### TRAFFIC SAFETY STUDY FOR GARDEN BAR ROAD



Prepared for: **EDAW**

Prepared by: **PSOMAS**

Date: August 7, 2008

**REGISTERED CIVIL ENGINEER STAMP**

This Traffic Safety Study has been prepared by Psomas under the direction of the following registered civil engineer. The registered civil engineer attests to the accuracy of the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

---

BRIAN G WRIGHT, P.E.  
Project Engineer  
PSOMAS

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## EXECUTIVE SUMMARY

Psomas was contracted by Placer County through EDAW to complete a Traffic Safety Study for Garden Bar Road in northern Placer County. This study forms part of the Environmental Impact Report currently being prepared by EDAW for the development of the Spears Ranch portion of the Hidden Falls Regional Park.

The purpose of this study is to determine the feasibility of Garden Bar Road north of Mount Pleasant Road, currently a County maintained two-lane rural road, as a public vehicle access route into the western side (Spears Ranch portion) of the Hidden Falls Regional Park.

The analysis considers the development of Hidden Falls Regional Park vehicle access in four potential phases, namely:

- *Phase 1* – No general public vehicle access via Garden Bar Road – The general public would continue to access the entirety of the park from the existing entrance on Mears Place. Garden Bar entrance would continue to be used by County employees, tenants, contractors, consultants, utility providers, fire, and law enforcement personnel without additional improvements. Emergency, construction, and film production vehicles as well as occasional busses or shuttles would enter the site via the existing Garden Bar Road entrance. Occasional classroom sized groups would be permitted to access the site through Garden Bar Entrance on appointment basis (gates would be opened and closed behind groups).
- *Phase 2* – In addition to Phase 1 Access daily public automobile access would be allowed to the new staging area at western end of property via Garden Bar Road. Equestrian trailers would be excluded from the staging area via Garden Bar Road and would continue to enter the site via Mears Road staging area. Events consistent with passive recreation and education with 200 attendees or less at one time would be allowed by County Parks Division reservation. Use of ranch house for educational and/or meeting purposes would remain regulated by County Parks Division reservation system and/or use agreements. The Mears Place entrance would continue to function as a staging/parking area.
- *Phase 3* – In addition to Phase 1 and 2 Access daily public access for equestrian trailers would be allowed to the new staging area at western end of property via Garden Bar Road

The traffic safety study includes an analysis of the existing roadway width, horizontal alignment and vertical profile, and an assessment of drainage and pavement condition, and signing and striping.

The results of the study can be summarized as follows:

- For Phase 1:
  - Prior to allowance of classroom sized groups, a new public access gate, two cattle guards and approximately 200 feet of connecting road to existing access road would be constructed at the intersection of Garden Bar Road near the

existing access road and fencing would be constructed along both sides of access road between Garden Bar Road and site.

- Up to 25 additional paved parking stalls and up to 12 additional equestrian parking stalls may be developed at the existing Mears Road entrance.
- For Phase 2 (in addition to Phase 1 improvements):
  - New staging area would be constructed at west end of property to include 50 stall paved parking lot and gravel overflow area
  - Widen Garden Bar Road from Mount Pleasant Road to Hidden Falls access road to 18 feet of hard surface with 2 foot shoulders and vertical curves along Garden Bar Road would be improved as recommended in this report.
  - Signing and striping improvements along Garden Bar Road.
  - Improve the access road from Garden Bar Road to the staging area to 24 feet wide with 2 foot shoulders.
  - A gate would be installed between the Garden Bar Road access staging area and the ranch house to prevent unrestricted vehicle access beyond staging area into remainder of property.
- For Phase 3 (in addition to Phase 1 and 2 improvements):
  - A gravel equestrian staging area would be constructed adjacent to the new paved parking lot sized to allow parking for up to 20 horse trailers
  - Widen Garden Bar Road from Mount Pleasant Road to Hidden Falls access road to 20 feet of hard surfacing with 2 foot shoulders subject to County review and approval
  - Horizontal curves along Garden Bar Road would be improved as recommended in this report.

A summary matrix of findings and recommendations for each Phase (Use Category) is included in Table 5.

## **1. INTRODUCTION**

Psomas was contracted by Placer County through EDAW to complete a Traffic Safety Study for Garden Bar Road in northern Placer County. This study forms part of the Environmental Impact Report currently being prepared by EDAW for the development of the Spears Ranch portion of the Hidden Falls Regional Park.

In September 2004, a mitigated negative declaration was adopted for the Didion Ranch portion of the park. Therefore the environmental review process has been completed for the Didion Ranch site. In 2006 improvements were completed to the access road and new parking lot constructed for the Didion Ranch portion of the Hidden Falls Regional Park.

The purpose of this study is to determine the feasibility of Garden Bar Road as a public vehicle access route into the western side (Spears Ranch portion) of the Hidden Falls Regional Park (see Figure 1). Constraints and limitations for various users and vehicle types have been identified and recommendations regarding improvements to this facility are included in this report.

The study was based on discussions with County staff, review of the project site, and implementation of design standards appropriate to the unique proposed uses of the project site. No topographical mapping was available at the time of this study and all recommendations should be confirmed and refined during the preliminary engineering phase of the project.

## **2. PROJECT COMPONENTS**

The proposed Hidden Falls Regional Park Project would include construction of a variety of features for the various uses proposed for the park. Specific features and uses that are being considered include:

- An extensive trail system consisting of approximately 12 miles of new unpaved trails in addition to 10 miles of existing ranch roads for hikers, bikers, and equestrians
  - including bridge crossings over Coon Creek, Deadman Creek, and ephemerals to support the trail network
  - connections to the existing trail system within the Didion Ranch portion of the park and other properties;
- picnic, restroom facilities;
- fire suppression amenities;
- equestrian facilities;
- miscellaneous recreational and educational facilities.



### 3. PROJECT LOCATION AND EXISTING CONDITIONS

Hidden Falls Regional Park is approximately 1,182 acres in the Sierra Nevada Foothills, which consists of the properties formerly known as Spears Ranch (961 acres) and Didion Ranch (221 acres). Garden Bar Road is located to the west of the park; Mt. Vernon and Mt. Pleasant Roads are to the south; Big Hill Road is to the north, and Bell and Hubbard Roads are to the east (see Figure 2).

This portion of **Garden Bar Road** is a County maintained rural road that extends approximately 2.7 miles from the intersection with Mount Pleasant Road on the south to the proposed park entrance on the north. The roadway varies in width between 15 ft and 20 ft, has limited signage and does not have any centerline or edge line striping. Stormwater runoff is generally captured in roadside ditches and carried across the roadway through pipe culverts ranging in size from 12 inches to 36 inches. The roadway could be described as rolling and winding, with grades up to 9% and several tight radius curves (75'-300').



PLATE 1 – GARDEN BAR ROAD (SEGMENT A - STA 20+00 : LOOKING NORTH)

The roadway is lined with property fences and trees. Utility poles carrying electricity and telephone/communication lines are located alongside the roadway. No underground utilities were observed within the roadway. The southern end of the road has more driveway access points and is fairly straight with flatter grades.

The north end of the road is narrower, has more vegetation adjacent to the roadway, steeper grades and several tight radius curves. Currently, Garden Bar Road is used primarily by residents and maintenance vehicles. The road is a designated school bus route. Truck usage is restricted to times when school buses are not present.



PLATE 2 – GARDEN BAR ROAD (SEGMENT B - STA 125+00)

**Mount Pleasant Road** is a County maintained rural roadway that extends primarily east-west from Crosby Herold Road to Mount Vernon Road and ties into Big Ben Road in the west and Wise Road to the east. The roadway is a two lane facility with nominal shoulders and has a posted speed of 40 mph.

#### **4. TRAFFIC ANALYSIS**

A traffic analysis is currently being completed for this project to determine existing and projected future traffic volumes. Current traffic counts indicate that existing traffic volumes on Garden Bar Road are fairly low, averaging 275-325 vehicles per day (vpd) during weekdays and 225-275 vpd on weekends.

Based on experience gained from the Didion Ranch Portion of the Park, it is anticipated that the Hidden Falls Regional Park will initially generate approximately 200-300 vpd on weekends and public holidays. This number is likely to reduce after a flux in use following the initial opening of the western end of the site to public use. It should be noted that traffic volume data from the Mears Road entrance area shows that traffic



associated with the use of Hidden Falls Regional Park peaks during mid-day hours outside of typical AM and PM commute hour peaks. Peak traffic trends would likely be similar on a Garden Bar entrance.

Existing usage of Garden Bar Road is primarily limited to local residents and service vehicles. The road will continue to be a designated school bus route. It is anticipated that the park may generate a variety of traffic from bicycles, passenger vehicles and horse trailers and emergency/maintenance vehicles.

If Phase 2 usage is determined, a surfaced parking lot is proposed and will be sized to accommodate anticipated uses. In addition, a gravel overflow parking area and a secondary parking lot to accommodate a nature/conference center are being considered.

During Phase 3, a gravel equestrian staging area will be installed in addition to the amenities for Phase 2.

## **5. DESIGN CONSIDERATIONS**

### **5.1 Design Vehicle/Use Category**

Four phases of proposed design vehicle and use categories have been identified and are considered in this analysis:

- *Phase 1* –No general public vehicle access via Garden Bar Road – The general public would continue to access the entirety of the park from the existing entrance on Mears Place. Garden Bar entrance would continue to be used by County employees, tenants, contractors, consultants, utility providers, fire, and law enforcement personnel without additional improvements. Emergency, construction, and film production vehicles as well as occasional busses or shuttles would enter the site via the existing Garden Bar Road entrance. Occasional classroom sized groups would be permitted to access the site through Garden Bar Entrance on appointment basis (gates would be opened and closed behind groups).
- *Phase 2* – In addition to Phase 1 Access daily public automobile access would be allowed to the new staging area at western end of property via Garden Bar Road. Equestrian trailers would be excluded from the staging area via Garden Bar Road and would continue to enter the site via Mears Road staging area. Events consistent with passive recreation and education with 200 attendees or less at one time would be allowed by County Parks Division reservation. Use of ranch house for educational and/or meeting purposes would remain regulated by County Parks Division reservation system and/or use agreements. The Mears Place entrance would continue to function as a staging/parking area.
- *Phase 3* – In addition to Phase 1 and 2 Access daily public access for equestrian trailers would be allowed to the new staging area at western end of property via Garden Bar Road

The roadway width requirements for Phase 3, where horse-trailers are present and may be required to pass one another, will be greater than Phase 2 where the likelihood of two buses passing one another is small. Turning radii and tracking requirements (width from outside to inside wheel paths) for buses are slightly greater than those for standard horse-trailers or autos with trailers.

### 5.2 Design Speed

There is currently no posted speed along Garden Bar Road. For the purposes of this study, the design speed is assumed to be 35 mph for the lower portion of the roadway (Sta 1+00 to 46+00), from now on referred to as Segment A, and 25 mph for the remainder of the road, up to the Entrance at Sta 146+00 (Segment B). Figure 3 shows the layouts of Garden Bar Road. This was based on observations of existing travel speeds and discussions with County staff.

The minimum criteria used in this analysis are shown in Table 1 below.

**TABLE 1: DESIGN CRITERIA**

Criteria	Design Speed	
	25 mph	35 mph
Stopping Sight Distance	150 ft	250 ft
Horizontal Radius	200 ft	400 ft

Source: Caltrans Highway Design Manual

### 5.3 Typical Section (Roadway Width):

The standard for a rural secondary roadway is 32 feet of paved surface. Due to the nature of the existing roadway the standard for a rural secondary roadway is not considered appropriate for this setting and would result in unnecessary widening of the existing road and change in character of the roadway given the existing and future use levels. The County Fire Department's requirement is an 18 ft wide all-weather surface (see Figure 4) and is considered appropriate for Phase 2.

## **6. ANALYSIS**

### 6.1 Roadway Width

In order to determine the minimum width, measurements were taken of the existing roadway at various intervals. Segment A was generally found to be between 16 ft and 20 ft wide, while Segment B was narrower measuring between 15 ft and 17 ft. Roadway widening is shown to occur on one side of the roadway only to make construction more practical and cost effective. Roadway widening is proposed on the side which has the least impact on properties, trees, environmentally sensitive areas and utility poles.

Roadway widening would be required through several areas where potential wetlands were noted. These include Sta 7+20 (left), Sta 17+00 (left), Sta 37+50 (right) and Sta

67+00 (right). Roadway widening would also impact a significant number of trees along the roadway.

Existing roadside ditches would be perpetuated where widening is to take place. Based on observations of the existing cut slopes and soil type, cut slopes are likely to be 2:1 or steeper as recommended by a geotechnical engineer.

The minimum County Fire Department requirement of 18 ft with 2 ft unpaved shoulders considered reasonable for Phase 3 traffic would require widening the existing roadway for a length of 7,600 feet as shown in Figure 3.

Phase 1 usage would not be considered to be significantly greater than baseline usage, so roadway widening and realignment would not be considered necessary.

## 6.2 Horizontal Alignment

Segment A is generally a straight alignment with a minimum curve radius of 400 ft. No realignments are recommended.

Segment B has several tight radius curves that do not meet the minimum design standards of 200 ft to 400 ft.

Several options were considered to improve the sight distance at these locations as shown in Table 2 below.

**TABLE 2: HORIZONTAL SIGHT DISTANCE IMPROVEMENT OPTIONS**

<b>Option</b>	<b>Pros</b>	<b>Cons</b>
Realign Road	Improves sight distance Improves safety	Impacts on property, vegetation, utilities would be greater Increased cost May increase traveled speed
Earthwork to push back cut slopes	Improves sight distance	Impacts on property, vegetation, utilities. Does not satisfy design speed criteria.
Roadway Widening	Assists in improving safety Impacts would be fairly minor	Does not satisfy design speed criteria
Vegetation Removal	Assists in improving sight distance Impacts to property would be minor	Impacts to trees and vegetation would remain. Does not satisfy design speed criteria



**PLATE 3 – GARDEN BAR ROAD (SEGMENT B - STA 75+00)**

After review of the project site the following recommendations have been made for each of the substandard horizontal curves identified in Figure 3 (see Table 3 below). During Phase 1 and 2 additional warning signs are recommended along Garden Bar Road to notify motorists of tight radius curves.

**TABLE 3: RECOMMENDED IMPROVEMENT OPTION**

<b>Curve Number</b>	<b>Curve Location</b>	<b>Recommended Improvement</b>	<b>Justification</b>
HC-1	Sta 47+00 (Radius 90 ft)	Realignment – Increase radius to 200 ft. Widen to inside.	This is the first curve at the end of Segment A and is below the minimum standard. Widening would impact property on the west side of the roadway. 4-5 trees would be impacted and a utility pole.
HC-2	Sta 55+00 (Radius 175 ft)	Earthwork - push back existing cut slope as part of widening	This short length of roadway could be corrected by pushing back the 10 ft high cut slope on the right side. Widening on the left side is not feasible due to the steep drop off and large number of trees.

**TABLE 3: RECOMMENDED IMPROVEMENT OPTION (CONTINUED)**

<b>Curve Number</b>	<b>Curve Location</b>	<b>Recommended Improvement</b>	<b>Justification</b>
HC-3	Sta 72+00 (Radius 110 ft) to Sta 75+00 (Radius 110 ft)	Realignment – Increase radius to 200 ft minimum.	This section presents a number of safety concerns with very poor sight distance, steep grades and a driveway at Sta 75+50 (see Plate 3). Widening is recommended to the southwest away from the steep cut slope on the north east side of the road.
HC-4	Sta 83+50 (Radius 110 ft)	Removal of vegetation and widening right.	Removal of the vegetation on the west side of the roadway and widening out to the east are recommended. The existing pipe culvert would need to be replaced or extended if feasible.
HC-5	Sta 96+00 (Radius 150 ft)	Realignment and lowering of the profile are recommended at this location	This curve does not meet the minimum standards for horizontal or vertical curves although the roadway width is adequate. Recommend realignment to the east where a small cut slope of 2-3 ft exists. No trees would be affected.
HC-6	Sta 100+00 (Radius 100 ft)	Realignment –increase radius to 200 ft	Realign to the east where a small cut slope of 3-5 ft exists. One tree may be affected.
HC-7	Sta 108+00 (Radius 75 ft)	Realignment to increase the radius to 200 ft or modify this tee-intersection into a three- way stop.	Realignment would result in a number of large trees being removed. To avoid this, an option would be to install a three way stop controlled intersection.
HC-8	Sta 116+00 (Radius 100 ft)	Realignment between rock outcroppings may be possible along with earthwork and vegetation removal.	Realignment would require excavation of rock which is evident on both sides of the road.
HC-9	Sat 120+00 (Radius 125 ft)	Realignment to increase the radius to 200 ft.	Realignment to the west is recommended creating a small fill slope. Several trees would be impacted. Removal of vegetation only would improve sight distance during daylight.

HC-#: For Horizontal Curve Number see Layout Plans in Figure 3

**TABLE 3: RECOMMENDED IMPROVEMENT OPTION (CONTINUED)**

<b>Curve Number</b>	<b>Curve Location</b>	<b>Recommended Improvement</b>	<b>Justification</b>
HC-10	Sta 122+50 (Radius 80 ft)	Widening – to improve sight distance at this location.	Realignment to achieve a 200 ft radius would require significant rock excavation and probably blasting. Existing rock outcropping is probably 50 ft above the roadway. Widening out on the west side is more feasible although achieving a 200 ft radius would be difficult without significant earthwork.
HC-11	Sta 126+50 (Radius 100 ft)	Realignment to increase the radius to 200 ft.	Realignment to the west is recommended creating a small fill slope. Several trees would be impacted. Removal of vegetation only would improve sight distance during daylight.
HC-12	Sta 144+00 (Radius 80 ft)	Realignment – Increase radius to 200 ft. Widen to inside and realign the entrance roadway into the park to the apex of the curve. Consideration should be given to making this a tee intersection with a 3-way stop.	This is the proposed location of the Park entrance. Sight distance at this curve would be desirable. Realignment would be relatively easy.

HC-#: For Horizontal Curve Number see Layout Plans in Figure 3

At each curve where the radius is 200 ft or less, it is recommended that the roadway be widened to satisfy the off-tracking requirements for buses, autos with trailers and horse trailers. The recommended widening shall be as follows:

- 100 ft radius – 12 ft minimum lane width
- 150 ft radius – 11 ft minimum lane width
- 200 ft radius – 10 ft minimum lane width

### 6.3 Vertical Profile:

Several locations along Segment A were identified as having inadequate sight distance due to the length of the vertical curve and approach and exit grades. In addition, at most of these locations, private access driveways are located at the crests of these curves resulting in limited sight distance for motorists entering the roadway. This was confirmed from discussions with several local residents who expressed their concerns with the limited sight distance of the existing roadway.





**PLATE 3 – GARDEN BAR ROAD (SEGMENT A - STA 30+00)**

After review of the project site, the following recommendations have been made for each of the substandard vertical curves identified in Figure 3 (see Table 4 below). These recommendations are applicable to all vehicle type/use categories. It is recommended that priority be given to those areas identified in Segment A.

**TABLE 4: RECOMMENDED VERTICAL CURVE IMPROVEMENTS**

<b>Curve Number</b>	<b>Curve Location</b>	<b>Recommended Improvement</b>	<b>Impacts</b>
VC-1	Sta 30+00 (Sight distance 140 ft, approach grades 7% and -9%)	Lower vertical curve by up to 5 ft to achieve 250 ft required sight distance.	Lowering the vertical curve would result in increasing cut slopes by 5 ft, reconstructing fences, tree removal and reconstructing portions of the driveway approaches.
VC-2	Sta 35+00 (Sight distance 120 ft, approach grades 7% and -2%)	Lower vertical curve by up to 5 ft to achieve 250 ft required sight distance.	Lowering the vertical curve would result in increasing cut slopes by 5 ft, reconstructing fences, tree removal and reconstructing portions of the driveway approaches.

**TABLE 4: RECOMMENDED VERTICAL CURVE IMPROVEMENTS  
(CONTINUED)**

<b>Curve Number</b>	<b>Curve Location</b>	<b>Recommended Improvement</b>	<b>Impacts</b>
VC-3	Sta 96+00 (Sight distance 130 ft, approach grades 5% and -5%)	Lower vertical curve by 2-3 ft to achieve 150 ft required sight distance.	Lowering the vertical curve would result in increasing cut slopes by 2-3 ft, to 3-5 ft reconstructing fences and reconstructing portions of the driveway approach to the west.
VC-4	Sta 104+00 (Sight distance 130 ft, approach grades 7% and -4%)	Lower vertical curve by 2-3 ft to achieve 150 ft required sight distance.	Lowering the vertical curve would result in increasing cut slopes by 2 ft to 3-5 ft.
VC-5	Sta 111+00 (Sight distance 120 ft, approach grades 6% and -8%)	Lower vertical curve by 2-3 ft to achieve 150 ft required sight distance.	Lowering the vertical curve would result in increasing cut slopes by 2 ft to 3-5 ft, reconstructing fences, tree removal and reconstructing portions of the driveway approaches.

VC-#: For Vertical Curve Number see Layout Plans in Figure 3

Consideration should be given to reducing the design speed on the entire roadway to 25 mph. This will reduce the extent of the profile adjustments required to meet the minimum sight distance standard.

#### 6.4 Drainage

Existing drainage appears to be working adequately with the use of roadside ditches and cross culverts. Discussion with County maintenance staff confirmed there is no known existing flooding or major erosion concerns along this portion of Garden Bar Road. The majority of stormwater runoff is conveyed in roadside ditches and cross pipe culverts varying in size from 12 inches to 36 inches. It is proposed to maintain existing drainage patterns with the improvements. Where new roadside ditches are constructed, rock slope protection (RSP) or other Best Management Practices (BMP's) are recommended where grades result in velocities that exceed the permissible velocities in Table 862.2 of the Highway Design Manual. Flared end sections and rip-rap or RSP is recommended at the outlets of cross culverts.





PLATE 4 – GARDEN BAR ROAD (SEGMENT B - STA 66+00)

#### 6.5 Signing and Striping

Garden Bar Road is not currently striped. It is recommended that the intersections of Garden Bar Road and Mt Pleasant Road be striped and a “STOP” pavement marking, stop limit line and a Stop sign (R1-1) be installed. The same would apply to the tee-intersection at Sta 108+00. These improvements are recommended for all proposed vehicle type/use categories. As discussed previously, consideration should be given to making the entrance road off of Garden Bar a tee-intersection and a 3-way stop.

For proposed vehicle type/use categories 2 and 3 it is recommended that at all tight radius horizontal curves (200 ft or less) directional warning signs (W1-8) be installed. Where driveways occur in the apex of the horizontal and vertical curves additional warning signs should be installed. Warning signs alerting motorists of winding roads (W1-5) and bicycles (W11-1) and speed limit signs (R2-1) shall be posted at several locations along the roadway. The specific types and number of signs should be confirmed during the schematic design (preliminary engineering) phase. The entrance road to the park at Sta 144+00 should be realigned and located at the apex of the curve to provide maximum sight distance. The entrance road should be paved due to the steep grades and would also require installation of a “STOP” pavement marking, stop limit line and Stop sign (R1-1).

Directional guidance signs would be placed along primary public access routes from both Auburn and Lincoln. For Phase 3 broader signage may be required due to the type of motorist associated with this use category. In addition, the higher traffic influx associated with a Phase 3 scenario (as opposed to the relatively metered and incremental increase in traffic associated with Phase 2) may provide nexus to evaluate roadway deficiencies on additional key ingress/egress routes beyond the limits of this study, such as Garden Bar Road south of Mount Pleasant and the Garden Bar/Wise Road intersection.

It is anticipated that a parking lot will be included with this project similar to what was recently constructed at the Mears Road Entrance. Directional and informational signs located at specific locations throughout Hidden Falls Regional Park and a kiosk would be placed at the parking/staging area in addition to interpretive and directional signage and/or audio-visual displays at key points throughout the property.

#### 6.6 Summary Matrix of Proposed Improvements

**TABLE 5: SUMMARY OF PROPOSED IMPROVEMENTS**

<b>Proposed Improvement</b>	<b>Phase 1 (Category 1)</b>	<b>Phase 2 (Category 2)</b>	<b>Phase 3 (Category 3)</b>
Roadway Widening to 18 ft minimum	None	7,600 ft	N/A
Roadway Widening to 20 ft minimum	None	N/A	10,400 ft
Realignment of roadway – Increase minimum radius to 200 ft.	None	Additional warning signs are recommended along Garden Bar Road to notify motorists of tight radius curves.	Curves HC-1, HC-2 HC-3, HC-4 HC-5, HC-6 HC-7, HC-8 HC-9, HC-10 HC-11, HC-12
Profile Adjustment	None	Curves VC-1, VC-2 VC-3, VC-4 VC-5	Curves VC-1, VC-2 VC-3, VC-4 VC-5
Drainage Improvements	None	Yes	Yes

**TABLE 5: SUMMARY OF PROPOSED IMPROVEMENTS (Continued)**

<b>Proposed Improvement</b>	<b>Phase 1 (Category 1)</b>	<b>Phase 2 (Category 2)</b>	<b>Phase 3 (Category 3)</b>
Signing and Striping	Several warning signs are recommended	Several warning signs are recommended	Several warning signs are recommended with additional Guidance Signs
Intersection Improvements	Minor entrance road improvements including gate, cattle guards and fencing Mt Pleasant/ Garden Bar Rd Signing & Striping Improvements	Improve the access road from Garden Bar Road to the staging area to 24 feet wide with 2 foot shoulders Mt Pleasant/ Garden Bar Rd Signing & Striping Improvements	Mt Pleasant/ Garden Bar Rd Signing & Striping Improvements

## 7. PHASING

In consideration of the phasing alternatives for public vehicle access along Garden Bar Road The following is a priority ranking of recommended improvements:

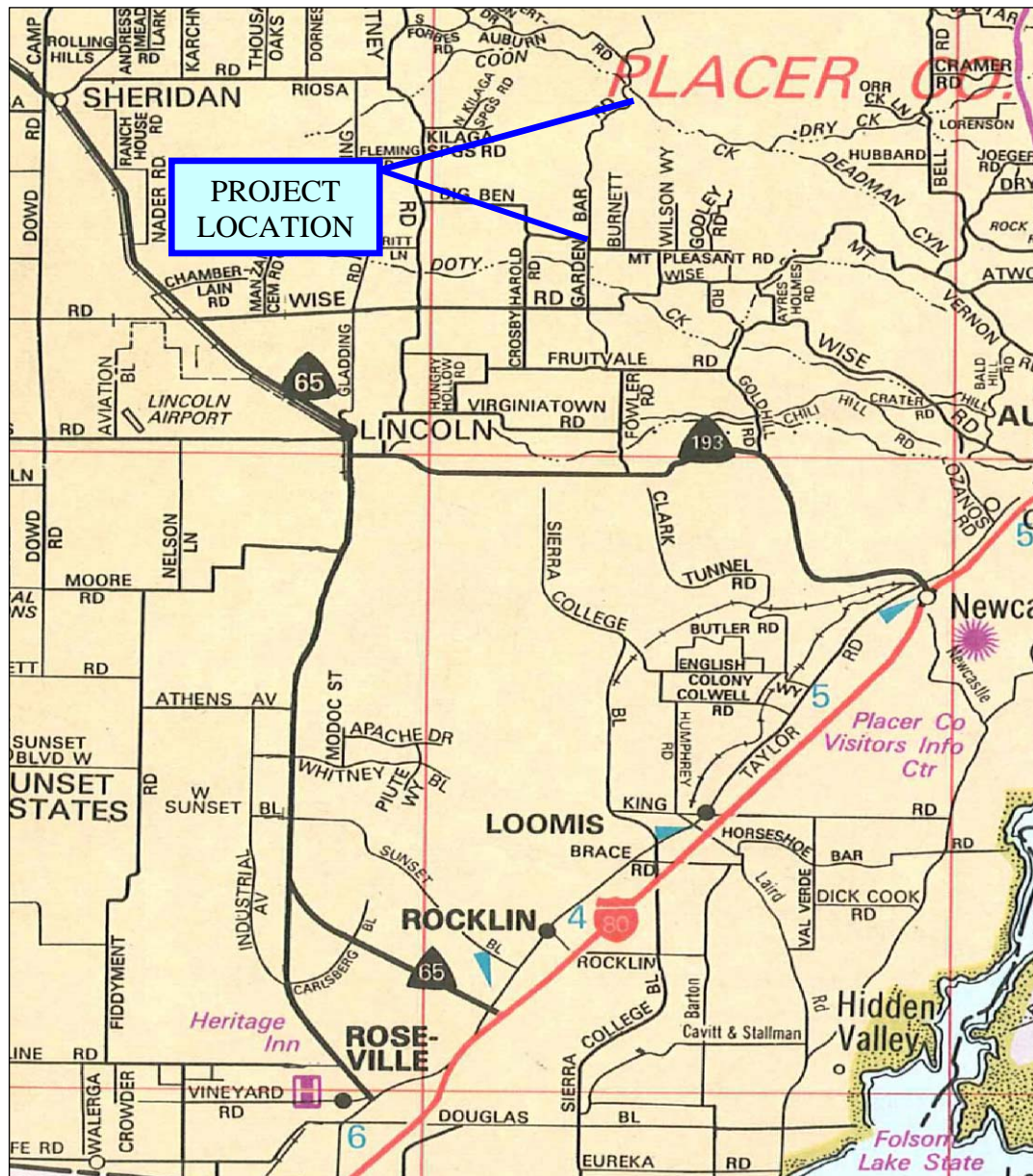
1. Signing and striping at identified intersections
2. Vertical sight distance deficiencies along Segment A of Garden Bar Road.
3. Horizontal/vertical sight distance issues along Segment B of Garden Bar Road.
4. Roadway widening at tight radius curves.
5. General roadway widening and drainage improvements.

Phasing of the project would be scheduled based on funding availability, user demand, and other factors.

## 8. COSTS

Development of construction costs associated with these improvements is beyond the scope of the Traffic Safety Study and would be performed during the Schematic Design (Preliminary Engineering) Phase.

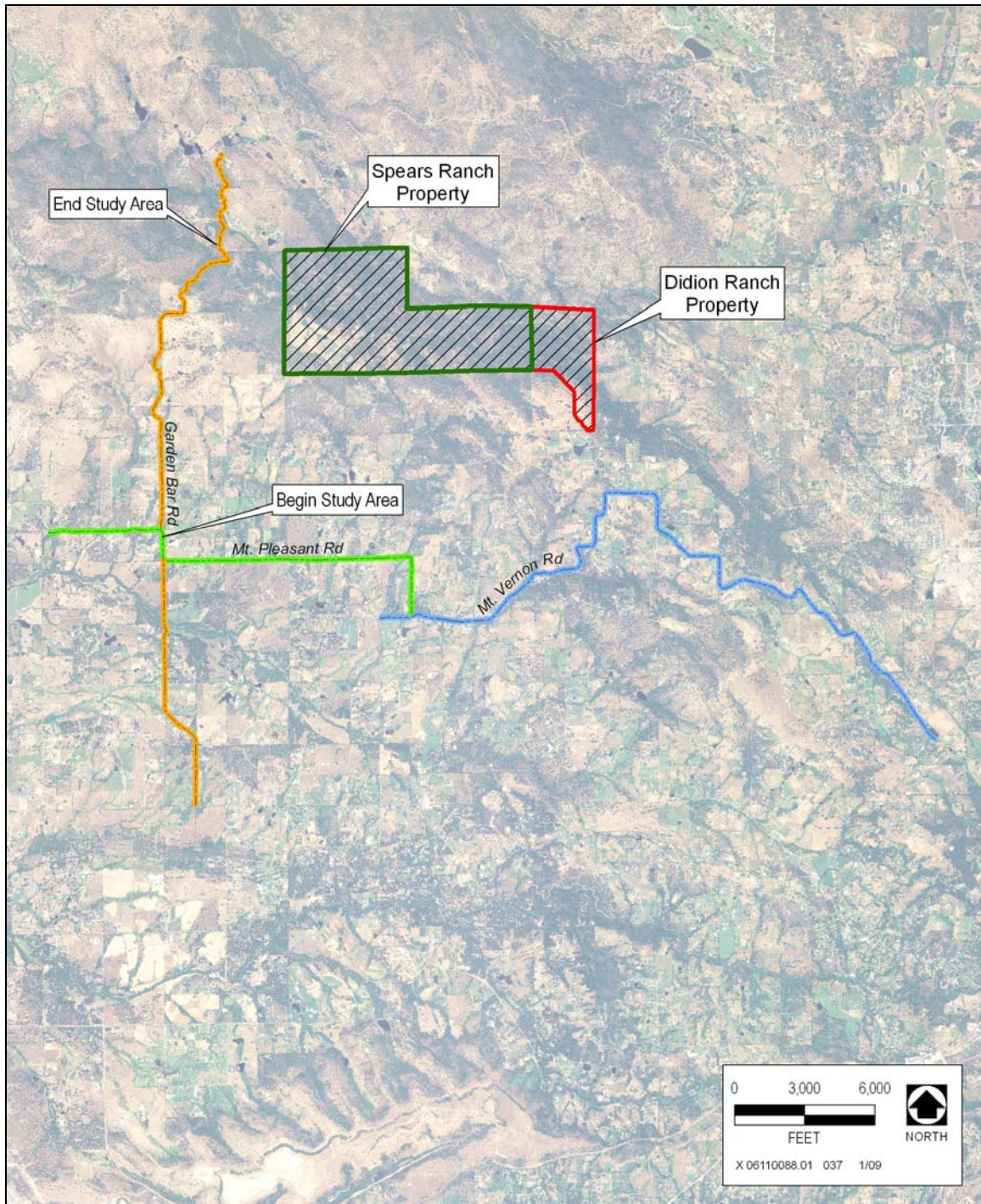




NOT TO SCALE

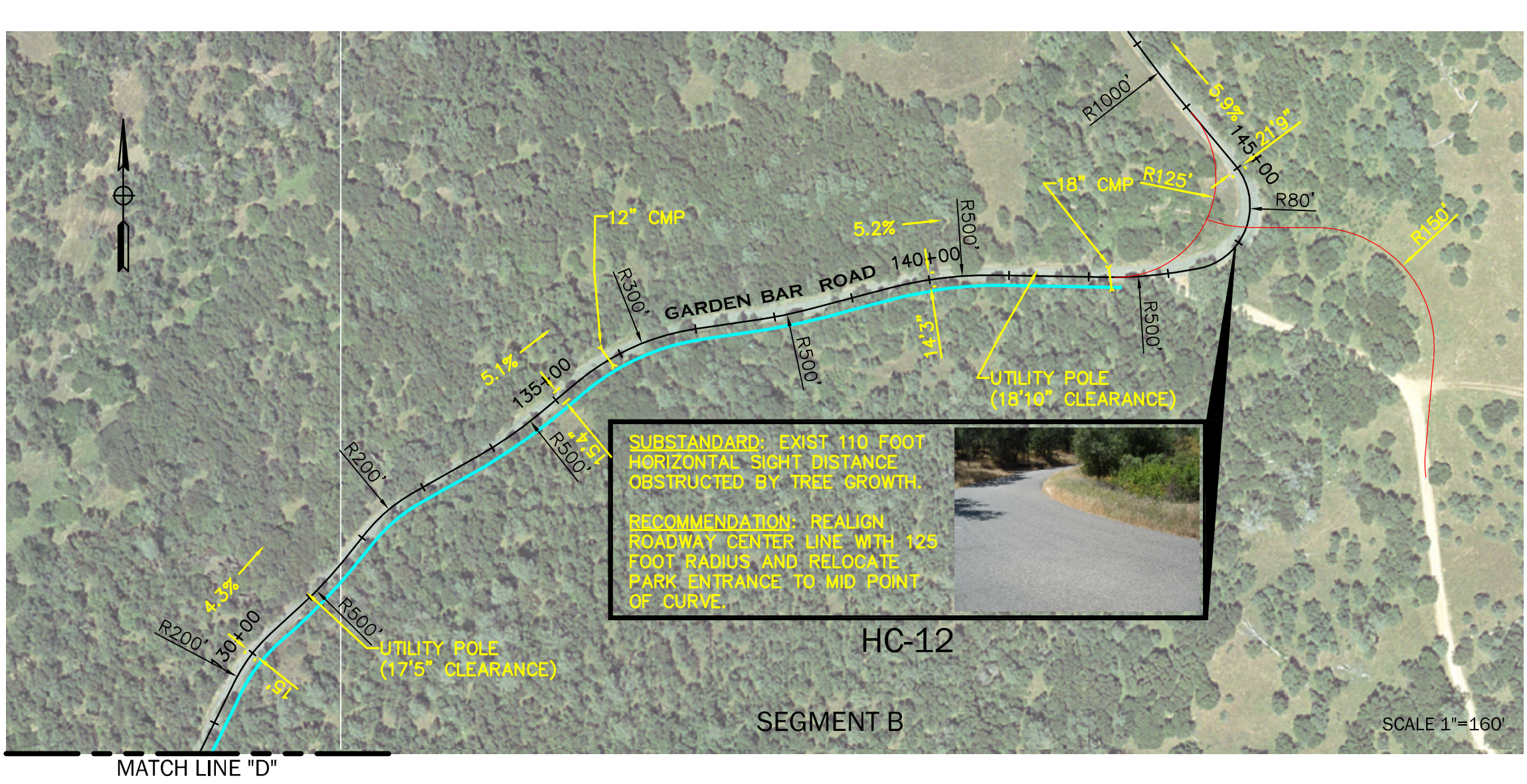
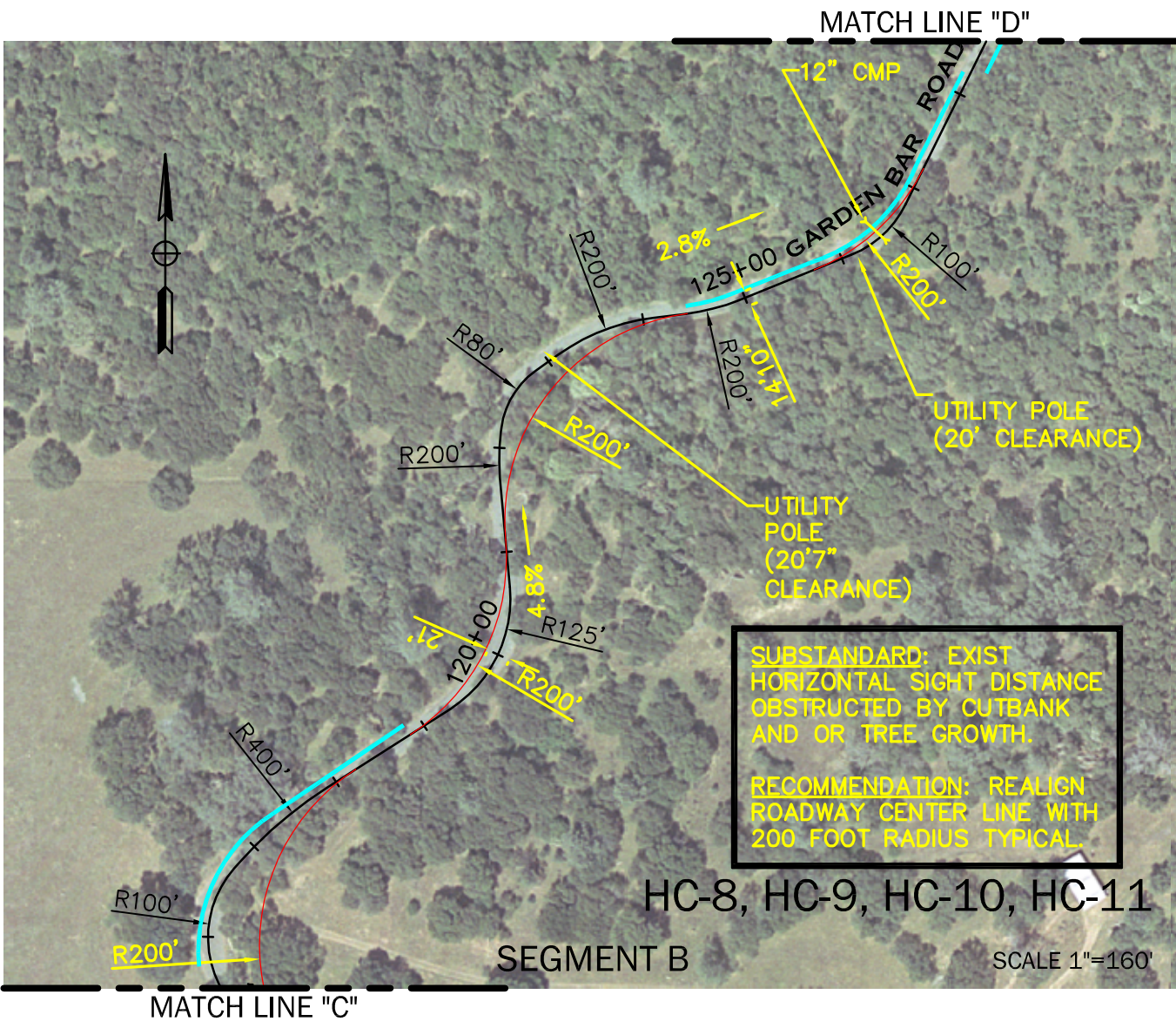
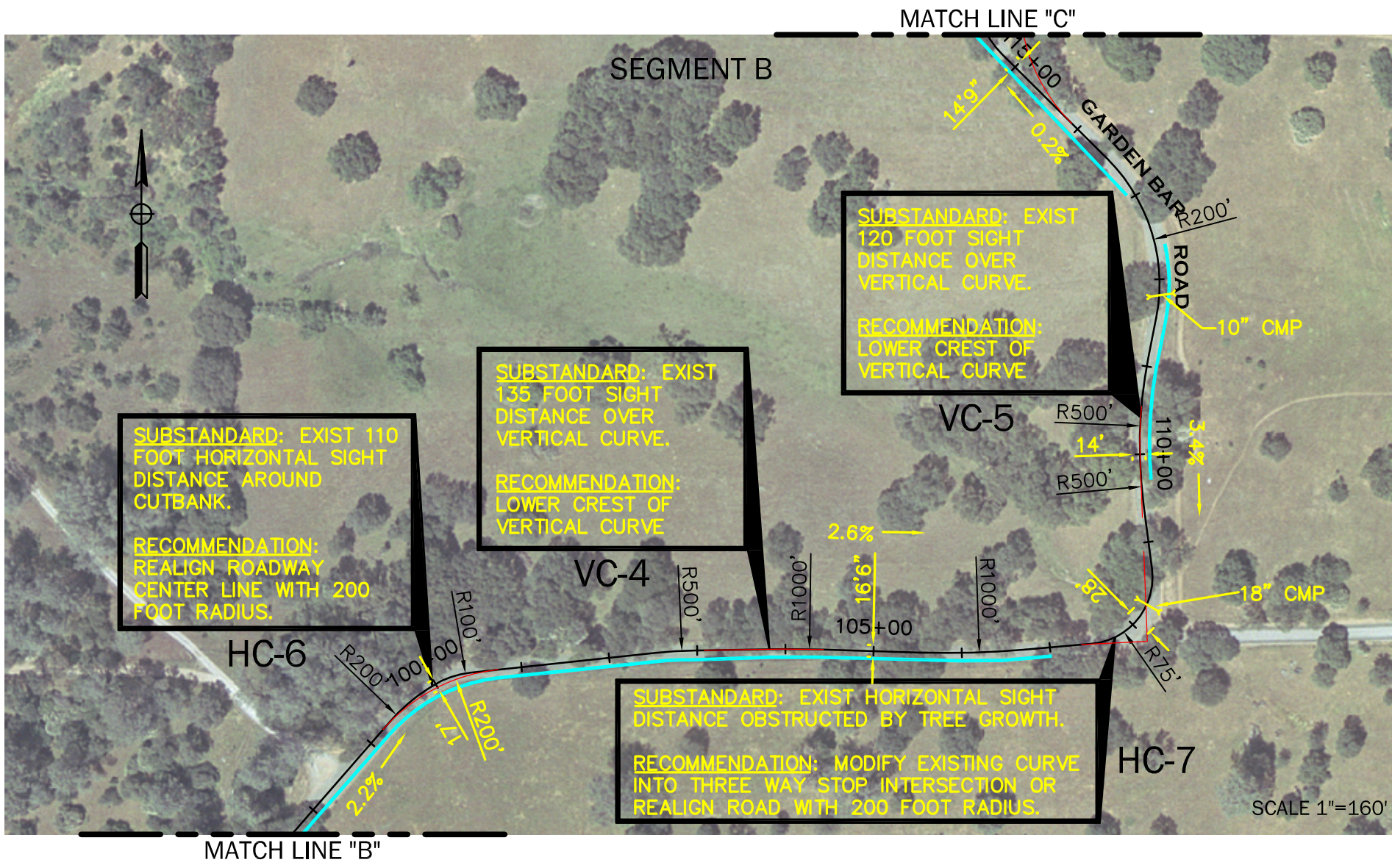
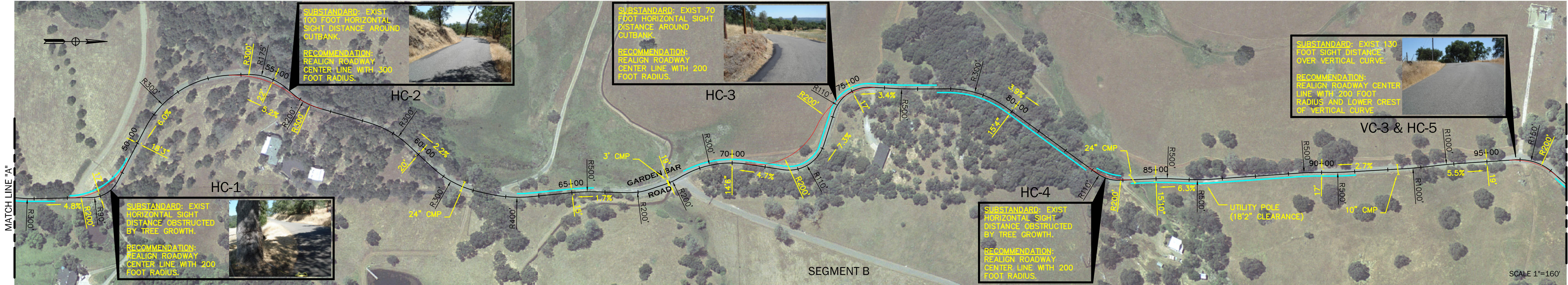
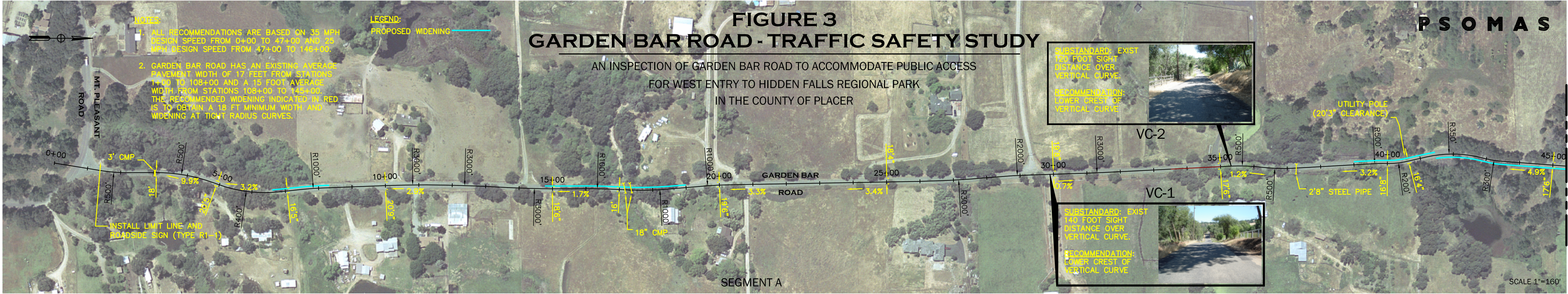
**FIGURE 1:  
VICINITY MAP**



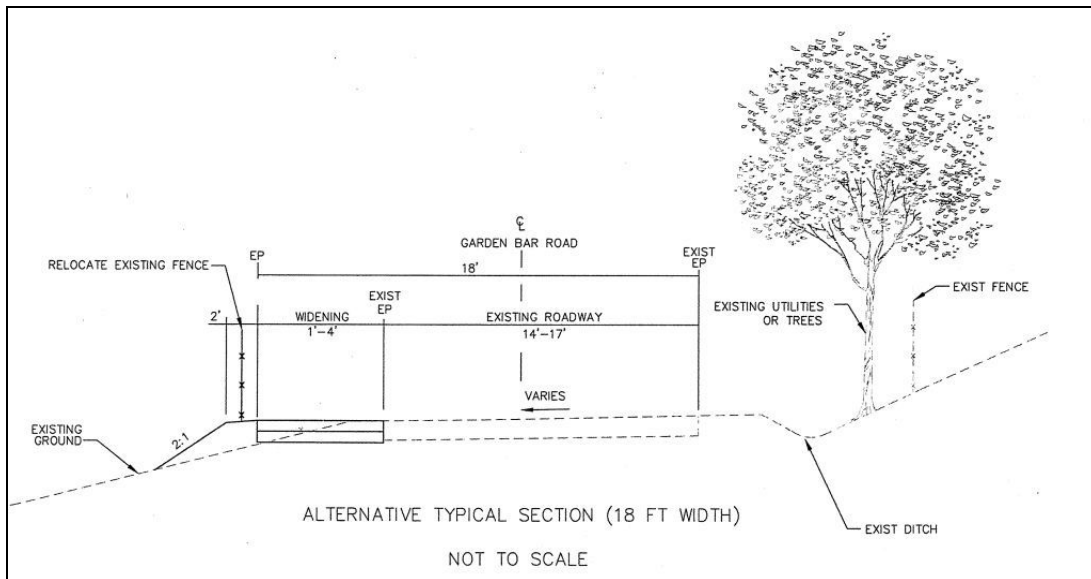


**FIGURE 2:  
LOCATION MAP AND STUDY LIMITS**









**FIGURE 4:  
TYPICAL ROADWAY CROSS SECTION  
(18 FT WIDTH)**

## **APPENDIX D**

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Air Quality



Urbemis 2007 Version 9.2.4

Detail Report for Annual Construction Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\boparaip\Desktop\Work\Hidden Falls Regional Park\Urbemis\Facilities Construction.urb924

Project Name: Construction of maintenance buildings

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
2008	0.39	1.04	0.62	0.00	0.01	0.06	0.08	0.00	0.06	0.06	98.40
Fine Grading 05/01/2008-	0.04	0.31	0.16	0.00	0.01	0.02	0.03	0.00	0.01	0.02	25.84
Fine Grading Dust	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	0.04	0.31	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.01	24.72
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12
Asphalt 06/02/2008-06/11/2008	0.02	0.10	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	9.22
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.07	0.03	0.00	0.00	0.01	0.01	0.00	0.01	0.01	4.53
Paving On Road Diesel	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.88
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82
Building 06/12/2008-11/21/2008	0.09	0.63	0.40	0.00	0.00	0.04	0.04	0.00	0.04	0.04	63.04
Building Off Road Diesel	0.08	0.61	0.30	0.00	0.00	0.04	0.04	0.00	0.04	0.04	52.26
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.17
Building Worker Trips	0.00	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.61
Coating 11/22/2008-12/11/2008	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
Architectural Coating	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29

Phase Assumptions

Phase: Fine Grading 5/1/2008 - 6/1/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 0.12

Maximum Daily Acreage Disturbed: 0.12

Fugitive Dust Level of Detail: Default

10 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 6/2/2008 - 6/11/2008 - Default Paving Description  
Acres to be Paved: 6.5  
Off-Road Equipment:  
4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day  
1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day  
2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day  
1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 6/12/2008 - 11/21/2008 - Default Building Construction Description  
Off-Road Equipment:  
1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day  
2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day  
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 11/22/2008 - 12/11/2008 - Default Architectural Coating Description  
Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250  
Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250  
Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250  
Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Urbemis 2007 Version 9.2.4

Detail Report for Annual Construction Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\boparaip\Desktop\Work\Hidden Falls Regional Park\Urbemis\Trail Construction.urb924

Project Name: Trail Construction

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10 Total</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5 Total</u>	<u>CO2</u>
2008	0.08	0.58	0.30	0.00	1.87	0.03	1.90	0.39	0.03	0.42	60.57
Mass Grading 09/01/2008-	0.08	0.58	0.30	0.00	1.87	0.03	1.90	0.39	0.03	0.42	60.57
Mass Grading Dust	0.00	0.00	0.00	0.00	1.87	0.00	1.87	0.39	0.00	0.39	0.00
Mass Grading Off Road Diesel	0.08	0.50	0.24	0.00	0.00	0.03	0.03	0.00	0.02	0.02	47.90
Mass Grading On Road Diesel	0.00	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.30
Mass Grading Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.37
2009	0.06	0.45	0.23	0.00	1.53	0.02	1.55	0.32	0.02	0.34	49.56
Mass Grading 09/01/2008-	0.06	0.45	0.23	0.00	1.53	0.02	1.55	0.32	0.02	0.34	49.56
Mass Grading Dust	0.00	0.00	0.00	0.00	1.53	0.00	1.53	0.32	0.00	0.32	0.00
Mass Grading Off Road Diesel	0.06	0.39	0.19	0.00	0.00	0.02	0.02	0.00	0.02	0.02	39.19
Mass Grading On Road Diesel	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.61
Mass Grading Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.76

Phase Assumptions

Phase: Mass Grading 9/1/2008 - 4/11/2009 - Trail Excavation

Total Acres Disturbed: 17

Maximum Daily Acreage Disturbed: 4.25

Fugitive Dust Level of Detail: Default

  10 lbs per acre-day

On Road Truck Travel (VMT): 52.5

Off-Road Equipment:

1 Excavators (42 hp) operating at a 0.57 load factor for 8 hours per day

1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Rubber Tired Dozers (84 hp) operating at a 0.59 load factor for 6 hours per day

Urbemis 2007 Version 9.2.4

Detail Report for Summer Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\boparaip\Desktop\Work\Hidden Falls Regional Park\Urbemis\Facilities Construction.urb924

Project Name: Construction of maintenance buildings

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 5/1/2008-5/30/2008 Active	3.35	<b>28.06</b>	<b>14.68</b>	0.00	<b>1.20</b>	1.41	<b>2.62</b>	<b>0.25</b>	1.30	1.55	<b>2,349.48</b>
Fine Grading 05/01/2008-	3.35	28.06	14.68	0.00	1.20	1.41	2.62	0.25	1.30	1.55	2,349.48
Fine Grading Dust	0.00	0.00	0.00	0.00	1.20	0.00	1.20	0.25	0.00	0.25	0.00
Fine Grading Off Road Diesel	3.31	28.00	13.56	0.00	0.00	1.41	1.41	0.00	1.30	1.30	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.04	0.06	1.12	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.17
Time Slice 6/2/2008-6/11/2008 Active	5.48	24.61	13.35	<b>0.01</b>	0.04	<b>1.72</b>	1.76	0.01	<b>1.58</b>	<b>1.60</b>	2,305.98
Asphalt 06/02/2008-06/11/2008	5.48	24.61	13.35	0.01	0.04	1.72	1.76	0.01	1.58	1.60	2,305.98
Paving Off-Gas	2.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.78	16.39	8.47	0.00	0.00	1.40	1.40	0.00	1.29	1.29	1,131.92
Paving On Road Diesel	0.50	8.09	2.65	0.01	0.03	0.32	0.35	0.01	0.29	0.30	969.73
Paving Worker Trips	0.07	0.12	2.23	0.00	0.01	0.00	0.01	0.00	0.00	0.01	204.33
Time Slice 6/12/2008-11/21/2008	1.46	10.78	6.85	0.00	0.01	0.68	0.69	0.00	0.62	0.63	1,077.58
Building 06/12/2008-11/21/2008	1.46	10.78	6.85	0.00	0.01	0.68	0.69	0.00	0.62	0.63	1,077.58
Building Off Road Diesel	1.39	10.47	5.09	0.00	0.00	0.67	0.67	0.00	0.61	0.61	893.39
Building Vendor Trips	0.02	0.23	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01	37.07
Building Worker Trips	0.05	0.09	1.61	0.00	0.01	0.00	0.01	0.00	0.00	0.01	147.12
Time Slice 11/24/2008-12/11/2008	<b>34.72</b>	0.03	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.38
Coating 11/22/2008-12/11/2008	<b>34.72</b>	0.03	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.38
Architectural Coating	34.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.38

Phase Assumptions

Phase: Fine Grading 5/1/2008 - 6/1/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 0.12

Maximum Daily Acreage Disturbed: 0.12

Fugitive Dust Level of Detail: Default

10 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

5/15/2008 04:41:15 PM

- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 6/2/2008 - 6/11/2008 - Default Paving Description

Acres to be Paved: 6.5

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 6/12/2008 - 11/21/2008 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 11/22/2008 - 12/11/2008 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Urbemis 2007 Version 9.2.4

Detail Report for Summer Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\boparaip\Desktop\Work\Hidden Falls Regional Park\Urbemis\Trail Construction.urb924

Project Name: Trail Construction

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10 Total</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5 Total</u>	<u>CO2</u>
Time Slice 9/1/2008-12/31/2008 Active	<u>1.89</u>	<u>13.18</u>	<u>6.81</u>	<u>0.00</u>	<u>42.51</u>	<u>0.66</u>	<u>43.17</u>	<u>8.88</u>	<u>0.61</u>	<u>9.49</u>	<u>1,376.62</u>
Mass Grading 09/01/2008-	1.89	13.18	6.81	0.00	42.51	0.66	43.17	8.88	0.61	9.49	1,376.62
Mass Grading Dust	0.00	0.00	0.00	0.00	42.50	0.00	42.50	8.88	0.00	8.88	0.00
Mass Grading Off Road Diesel	1.75	11.37	5.40	0.00	0.00	0.59	0.59	0.00	0.54	0.54	1,088.62
Mass Grading On Road Diesel	0.11	1.76	0.58	0.00	0.01	0.07	0.08	0.00	0.06	0.07	211.37
Mass Grading Worker Trips	0.03	0.05	0.84	0.00	0.00	0.00	0.01	0.00	0.00	0.00	76.63
Time Slice 1/1/2009-4/10/2009 Active	<u>1.75</u>	<u>12.43</u>	<u>6.46</u>	<u>0.00</u>	<u>42.51</u>	<u>0.62</u>	<u>43.13</u>	<u>8.88</u>	<u>0.57</u>	<u>9.45</u>	<u>1,376.65</u>
Mass Grading 09/01/2008-	1.75	12.43	6.46	0.00	42.51	0.62	43.13	8.88	0.57	9.45	1,376.65
Mass Grading Dust	0.00	0.00	0.00	0.00	42.50	0.00	42.50	8.88	0.00	8.88	0.00
Mass Grading Off Road Diesel	1.63	10.74	5.16	0.00	0.00	0.56	0.56	0.00	0.51	0.51	1,088.62
Mass Grading On Road Diesel	0.10	1.65	0.53	0.00	0.01	0.06	0.07	0.00	0.06	0.06	211.37
Mass Grading Worker Trips	0.02	0.04	0.77	0.00	0.00	0.00	0.01	0.00	0.00	0.00	76.66

Phase Assumptions

Phase: Mass Grading 9/1/2008 - 4/11/2009 - Trail Excavation

Total Acres Disturbed: 17

Maximum Daily Acreage Disturbed: 4.25

Fugitive Dust Level of Detail: Default

10 lbs per acre-day

On Road Truck Travel (VMT): 52.5

Off-Road Equipment:

1 Excavators (42 hp) operating at a 0.57 load factor for 8 hours per day

1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Rubber Tired Dozers (84 hp) operating at a 0.59 load factor for 6 hours per day

Urbemis 2007 Version 9.2.4

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\boparaip\Desktop\Work\Hidden Falls Regional Park\Urbemis\Trail Construction.urb924

Project Name: Trail Construction

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2008 TOTALS (tons/year unmitigated)	0.08	0.58	0.30	0.00	1.87	0.03	1.90	0.39	0.03	0.42	60.57
2009 TOTALS (tons/year unmitigated)	0.06	0.45	0.23	0.00	1.53	0.02	1.55	0.32	0.02	0.34	49.56

Urbemis 2007 Version 9.2.4

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\boparaip\Desktop\Work\Hidden Falls Regional Park\Urbemis\Facilities Construction.urb924

Project Name: Construction of maintenance buildings

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2008 TOTALS (lbs/day unmitigated)	34.72	28.06	14.68	0.01	1.20	1.72	2.62	0.25	1.58	1.60	2,349.48



Urbemis 2007 Version 9.2.4

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\boparaip\Desktop\Work\Hidden Falls Regional Park\Urbemis\Weekend Traffic.urb924  
Project Name: Hidden Falls Operational - Weekend  
Project Location: Placer County APCD  
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006  
Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	3.39	5.05	42.22	0.03	5.93	1.16	3,472.95

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	3.39	5.05	42.22	0.03	5.93	1.16	3,472.95

Urbemis 2007 Version 9.2.4

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\boparaip\Desktop\Work\Hidden Falls Regional Park\Urbemis\Trail Construction.urb924

Project Name: Trail Construction

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2008 TOTALS (lbs/day unmitigated)	1.89	13.18	6.81	0.00	42.51	0.66	43.17	8.88	0.61	9.49	1,376.62
2009 TOTALS (lbs/day unmitigated)	1.75	12.43	6.46	0.00	42.51	0.62	43.13	8.88	0.57	9.45	1,376.65

Urbemis 2007 Version 9.2.4

Summary Report for Winter Emissions (Pounds/Day)

File Name: C:\Documents and Settings\boparaip\Desktop\Work\Hidden Falls Regional Park\Urbemis\Weekend Traffic.urb924  
Project Name: Hidden Falls Operational - Weekend  
Project Location: Placer County APCD  
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006  
Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	4.43	7.23	48.75	0.03	5.93	1.16	3,033.86

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	4.43	7.23	48.75	0.03	5.93	1.16	3,033.86

## **APPENDIX E**

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Noise Modeling

**Appendix E**  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
**Model Input Sheet**

**Project Name :** Hidden Falls Regional Park EIR  
**Project Number :** 6110088.01  
**Modeling Condition :** Existing  
**Ground Type :** Soft  
**Metric (L<sub>eq</sub>, L<sub>dn</sub>, CNEL) :** CNEL

**K Factor :**  
**Traffic Desc. (Peak or ADT) :** ADT



Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	Garden Bar Rd (N )	Mt Pleasant Rd	project access	285	25	50	94	4	2	78.97	11.27	9.76	0
2	Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	885	35	50	94	4	2	78.97	11.27	9.76	0
3	Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	375	45	50	94	4	2	78.97	11.27	9.76	0
4	Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	910	45	50	94	4	2	78.97	11.27	9.76	0
5	Mears Dr (temporary)	Mears Place	Mt Vernon Rd	377	25	50	94	4	2	78.97	11.27	9.76	0
6	WK Garden Bar Rd (N )	Mt Pleasant Rd	project access	260	25	50	94	4	2	78.97	11.27	9.76	0
7	WK Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	715	35	50	94	4	2	78.97	11.27	9.76	0
8	WK Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	310	45	50	94	4	2	78.97	11.27	9.76	0
9	WK Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	710	45	50	94	4	2	78.97	11.27	9.76	0
10	WK Mears Dr (temporary)	Mears Place	Mt Vernon Rd	314	25	50	94	4	2	78.97	11.27	9.76	0

**Appendix E**  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
**Predicted Noise Levels**

**Project Name :** Hidden Falls Regional Park EIR  
**Project Number :** 6110088.01  
**Modeling Condition :** Existing  
**Metric (Leq, Ldn, CNEL) :** CNEL



Segment	Roadway	Segment		Noise Levels, dB CNEL				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Garden Bar Rd (N )	Mt Pleasant Rd	project access	42.6	40.5	45.1	47.9	2	4	8	17	36
2	Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	51.7	47.7	49.9	54.8	5	10	23	49	105
3	Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	51.1	45.7	47.1	53.4	4	8	18	39	84
4	Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	55.0	49.5	51.0	57.2	7	15	33	70	152
5	Mears Dr (temporary)	Mears Place	Mt Vernon Rd	43.8	41.7	46.3	49.1	2	4	9	20	44
6	WK Garden Bar Rd (N )	Mt Pleasant Rd	project access	42.2	40.1	44.7	47.5	2	3	7	16	34
7	WK Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	50.8	46.8	48.9	53.9	4	9	20	42	91
8	WK Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	50.3	44.8	46.3	52.6	3	7	16	34	74
9	WK Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	53.9	48.4	49.9	56.2	6	13	28	60	129
10	WK Mears Dr (temporary)	Mears Place	Mt Vernon Rd	43.0	40.9	45.5	48.3	2	4	8	18	39

**Appendix E**  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
**Model Input Sheet**

**Project Name :** Hidden Falls Regional Park EIR  
**Project Number :** 6110088.01  
**Modeling Condition :** Existing + Project  
**Ground Type :** Soft  
**Metric (L<sub>eq</sub>, L<sub>dn</sub>, CNEL) :** CNEL

**K Factor :**  
**Traffic Desc. (Peak or ADT) :** ADT



Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	WD Garden Bar Rd (N )	Mt Pleasant Rd	project access	541	25	50	94	4	2	78.97	11.27	9.76	0
2	WD Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	969	35	50	94	4	2	78.97	11.27	9.76	0
3	WD Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	457	45	50	94	4	2	78.97	11.27	9.76	0
4	WD Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	1000	45	50	94	4	2	78.97	11.27	9.76	0
5	WD Mears Dr (temporary)	Mears Place	Mt Vernon Rd	441	25	50	94	4	2	78.97	11.27	9.76	0
6	WK Garden Bar Rd (N )	Mt Pleasant Rd	project access	720	25	50	94	4	2	78.97	11.27	9.76	0
7	WK Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	867	35	50	94	4	2	78.97	11.27	9.76	0
8	WK Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	458	45	50	94	4	2	78.97	11.27	9.76	0
9	WK Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	872	45	50	94	4	2	78.97	11.27	9.76	0
10	WK Mears Dr (temporary)	Mears Place	Mt Vernon Rd	429	25	50	94	4	2	78.97	11.27	9.76	0

**Appendix E**  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
**Predicted Noise Levels**

**Project Name :** Hidden Falls Regional Park EIR  
**Project Number :** 6110088.01  
**Modeling Condition :** Existing + Project  
**Metric (Leq, Ldn, CNEL) :** CNEL



Segment	Roadway	Segment		Noise Levels, dB CNEL				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	WD Garden Bar Rd (N )	Mt Pleasant Rd	project access	45.4	43.3	47.9	50.7	3	6	12	26	56
2	WD Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	52.1	48.1	50.3	55.2	5	11	24	52	111
3	WD Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	52.0	46.5	48.0	54.2	4	10	21	45	96
4	WD Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	55.4	49.9	51.4	57.6	8	16	35	75	162
5	WD Mears Dr (temporary)	Mears Place	Mt Vernon Rd	44.5	42.4	47.0	49.8	2	5	10	22	48
6	WK Garden Bar Rd (N )	Mt Pleasant Rd	project access	46.6	44.5	49.1	51.9	3	7	14	31	67
7	WK Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	51.6	47.6	49.8	54.7	5	10	22	48	103
8	WK Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	52.0	46.5	48.0	54.3	4	10	21	45	96
9	WK Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	54.8	49.3	50.8	57.0	7	15	32	68	148
10	WK Mears Dr (temporary)	Mears Place	Mt Vernon Rd	44.4	42.3	46.9	49.7	2	5	10	22	48



**Appendix E**  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
**Model Input Sheet**

**Project Name :** Hidden Falls Regional Park EIR  
**Project Number :** 6110088.01  
**Modeling Condition :** Cumulative + Project  
**Ground Type :** Soft  
**Metric (L<sub>eq</sub>, L<sub>dn</sub>, CNEL) :** CNEL

**K Factor :**  
**Traffic Desc. (Peak or ADT) :** ADT

Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	WD Garden Bar Rd (N )	Mt Pleasant Rd	project access	500	25	50	94	4	2	78.97	11.27	9.76	0
2	WD Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	1110	35	50	94	4	2	78.97	11.27	9.76	0
3	WD Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	540	45	50	94	4	2	78.97	11.27	9.76	0
4	WD Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	1125	45	50	94	4	2	78.97	11.27	9.76	0
6	WK Garden Bar Rd (N )	Mt Pleasant Rd	project access	455	25	50	94	4	2	78.97	11.27	9.76	0
7	WK Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	900	35	50	94	4	2	78.97	11.27	9.76	0
8	WK Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	435	45	50	94	4	2	78.97	11.27	9.76	0
9	WK Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	880	45	50	94	4	2	78.97	11.27	9.76	0

**Appendix E**  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
**Predicted Noise Levels**

**Project Name :** Hidden Falls Regional Park EIR

**Project Number :** 6110088.01

**Modeling Condition :** Cumulative + Project

**Metric (Leq, Ldn, CNEL) :** CNEL

Segment	Roadway	Segment		Noise Levels, dB CNEL				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	WD Garden Bar Rd (N )	Mt Pleasant Rd	project access	45.0	42.9	47.5	50.3	2	5	11	24	53
2	WD Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	52.7	48.7	50.9	55.8	6	12	26	57	122
3	WD Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	52.7	47.2	48.7	55.0	5	11	23	50	107
4	WD Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	55.9	50.4	51.9	58.2	8	17	38	81	175
6	WK Garden Bar Rd (N )	Mt Pleasant Rd	project access	44.6	42.5	47.1	50.0	2	5	11	23	50
7	WK Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	51.8	47.8	49.9	54.9	5	11	23	49	106
8	WK Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	51.8	46.3	47.8	54.0	4	9	20	43	93
9	WK Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	54.8	49.4	50.8	57.1	7	15	32	69	148

**Appendix G**  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
**Model Input Sheet**

**Project Name :** Hidden Falls Regional Park EIR  
**Project Number :** 6110088.01  
**Modeling Condition :** Cumulative + Project  
**Ground Type :** Soft  
**Metric (L<sub>eq</sub>, L<sub>dn</sub>, CNEL) :** CNEL  
**K Factor :**  
**Traffic Desc. (Peak or ADT) :** ADT

Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	WD Garden Bar Rd (N )	Mt Pleasant Rd	project access	756	25	50	94	4	2	78.97	11.27	9.76	0
2	WD Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	1194	35	50	94	4	2	78.97	11.27	9.76	0
3	WD Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	622	45	50	94	4	2	78.97	11.27	9.76	0
4	WD Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	1215	45	50	94	4	2	78.97	11.27	9.76	0
6	WK Garden Bar Rd (N )	Mt Pleasant Rd	project access	915	25	50	94	4	2	78.97	11.27	9.76	0
7	WK Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	1052	35	50	94	4	2	78.97	11.27	9.76	0
8	WK Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	583	45	50	94	4	2	78.97	11.27	9.76	0
9	WK Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	1042	45	50	94	4	2	78.97	11.27	9.76	0

**Appendix G**  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
**Predicted Noise Levels**

**Project Name :** Hidden Falls Regional Park EIR

**Project Number :** 6110088.01

**Modeling Condition :** Cumulative + Project

**Metric (Leq, Ldn, CNEL) :** CNEL

Segment	Roadway	Segment		Noise Levels, dB CNEL				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	WD Garden Bar Rd (N )	Mt Pleasant Rd	project access	46.8	44.7	49.3	52.1	3	7	15	32	69
2	WD Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	53.0	49.0	51.2	56.1	6	13	28	59	128
3	WD Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	53.3	47.9	49.3	55.6	5	12	25	55	118
4	WD Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	56.2	50.8	52.2	58.5	9	18	40	85	184
6	WK Garden Bar Rd (N )	Mt Pleasant Rd	project access	47.6	45.5	50.2	53.0	4	8	17	37	79
7	WK Garden Bar Rd (S )	Mt Pleasant Rd	Wise Rd	52.5	48.4	50.6	55.6	5	12	25	55	118
8	WK Mt Pleasant Rd	Big Bent Rd	Garden Bar Rd (N)	53.0	47.6	49.1	55.3	5	11	24	52	113
9	WK Mt Pleasant Rd	Garden Bar Rd (S)	Wally Allen Rd	55.6	50.1	51.6	57.8	8	17	36	77	166

## **APPENDIX F**

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### Water Demand Calculation Report

# Water Demand Calculation

April 7, 2009

CARLTON

Engineering Inc.



**For: Tim Arndt**

Placer County Procurement  
11476 "C" Avenue  
Auburn, CA 95603

tel (530) 889-7776

From: Carl Sloan  
Subject: Water Demand Calculation Report - DRAFT  
Project: 6339-01-08 Hidden Falls Regional Park

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Total pages: 7

## 1. Introduction

This water demand calculation was prepared specifically for the Hidden Falls Regional Park project. This report provides detailed information regarding the calculations of the Maximum Day Demand (MDD) and the Peak Hour Demand (PHD) for this project. The calculations were prepared using the most current information available for the project. Future information obtained for the proposed area, or from other sources may result in changes.

## 2. Project Description and Background

The Hidden Falls Regional Park project consists of approximately 1,200 acres; and involves access and recreational improvements. It is located in Auburn, Placer County, and consists of two properties know as the Spears Ranch (approximately 979 acres) and Didion Ranch (approximately 221 acres). The project area for this water demand calculation is located within the Spears Ranch portion of the project. Currently the project proposes the use of groundwater wells for water service.

## 3. Water Calculations Criteria

- a. Proposed Improvements and Assumptions
  - i. One (1) staging area of similar size to the Didion Ranch Staging Area.
  - ii. Existing house to provide service for sixty (60) overnight campers, five (5) staff members and one (1) commercial kitchen. No shower or laundry facility.
  - iii. One (1) maintenance yard.
  - iv. One (1) caretaker residence.
  - v. Water demand calculations based on wastewater usage.
- b. References
  - i. Chapter 16 of the Title 22 California Code of Regulations used to calculate MDD and PHD.
  - ii. Onsite Wastewater Treatment System Manual - EPA 625/R-00/008-Chapter 3 (Appendix C).
  - iii. Existing Well Reading Data from the Didion Ranch Staging Area (Appendix B).

## 4. Results

Water demand calculations results are included in Appendix A titled Water Demand Calculations Table attached. The results include the MDD and PHD calculations for each specific use as well as the entire project.

# Water Demand Calculation

April 7, 2009

## 5. Conclusions

Based on the assumptions listed above and per results in the attached Appendix A - Water Demand Calculations Table, the groundwater source shall provide the new public water system with a minimum MDD of 4.7 gpm and PHD of 7.1 gpm; that includes a 20% contingency for the entire project. In case that the new public water system is incapable of supporting the entire project, MDD and PHD calculations are included for each specific use in Appendix A.

Per section 64554.(a)(2) of the Title 22 of the California Code of Regulations in Chapter 16 the public water system shall have storage capacity equal to or greater than the MDD of 5616 gallons, unless the system can demonstrate that it has an emergency source connection that can meet the MDD requirement.

## APPENDIX A - Water Demand Calculation

Project: HIDDEN FALLS REGIONAL PARK  
 Job number: 6339-01-08  
 Date: 03/07/2009  
 Revised: 04/07/2009  
 Prepared by: MDH  
 Checked by: CAM



Facility	Type of Occupancy	Occupants	Data Source	Average Daily Demand	Total Average Daily Demand	MDD <sup>5</sup>	PHD <sup>6</sup>
Existing House 1	Organized Camps	60 Campers	Table 3-6 Bunkhouse <sup>1</sup>	40 Gal/Person/Day	2400 Gal/Day	2.50 GPM	3.75 GPM
Existing House 1	Organized Camps	5 Staff	Table 3-3 Residential <sup>1</sup>	69.3 Gal/Person/Day	346.5 Gal/Day	0.36 GPM	0.54 GPM
Comm. Kitchen in Existing House 1		195 meals <sup>3</sup>	Table 3-4 Restaurant -Per Meal <sup>1</sup>	3 Gal/Meal/Day	585 Gal/Day	0.61 GPM	0.91 GPM
Caretaker House 2	Single Dwelling	1	Table 3-3 Residential <sup>1</sup>	69.3 Gal/Person/Day	69.3 Gal/Day	0.07 GPM	0.11 GPM
Staging Area	Picnic Areas	100	Hidden Falls (Didion) Well Reading	October 2008 <sup>2</sup>	236.2 Gal/Day	0.25 GPM	0.37 GPM
Maintenace Yard	Workshop	5 Staff	Table 3-4 Industrial Building <sup>1</sup>	13 Gal/Person/Day	65 Gal/Day	0.07 GPM	0.10 GPM
				<b>TOTAL (Gal/Day)</b>	<b>3702 Gal/Day</b>	<b>5616 Gal/Day</b>	<b>8496 Gal/Day</b>
				<b>TOTAL (GPM)</b>	<b>2.6 GPM</b>	<b>3.9 GPM</b>	<b>5.8 GPM</b>
				<b>TOTAL plus 20% Contingency (GPM)<sup>7</sup></b>	<b>3.1 GPM</b>	<b>4.7 GPM</b>	<b>7.0 GPM</b>

### NOTES:

1. Data Source from EPA 625/R-00/008-Chapter 3
2. Maximum Month October 2008 from Hidden Falls (Didion) Well Reading
3. 195 meals based on 65 persons x 3 meals/day
4. Average Day Demand (ADD)
5. Maximum Day Demand (MDD). MDD calculations based on a peaking factor of 1.5 as delineated in section 64554.(b)(2)(C) of the Title 22 of the California Code of Regulations in Chapter 16.
6. Peak Hour Demand (PHD). PHD calculations based on a peaking factor of 1.5 from the MDD as delineated in section 64554.(b)(2)(D) of the Title 22 of the California Code of Regulations in Chapter 16.
7. 20% Contingency added to calculated water demand for unaccounted usage (i.e. hose bibs, drinking fountains, etc)



# APPENDIX B

## Hidden Falls ( Didion) Well Reading

### Average Day Demand Calculation



Data provided by Placer County Parks Division - Dated 2/25/2009						Calculated by Carlton Engineering
Reading No.	Date of Reading	Meter Reading at Well head (gallons)	Days Since Last Reading	Gal/Day Since Last Reading	Gal/Day Running Average	ADD (Average Day Demand) Calculation *Interpolated value
2	08/01/2008	429950	0	0.0		ADD= (432870 - 429950)gal/31days ADD=94.2 gpd ADD= 94.2 gpd (1/24 hr) (1/60 min) ADD=0.07 gpm
3	08/05/2008	430310	4	90.0	90.0	
4	08/08/2008	430540	3	76.7	84.3	
5	08/14/2008	431060	6	86.7	85.4	
6	08/15/2008	431100	1	40.0	82.1	
7	08/19/2008	431370	4	67.5	78.9	
8	08/22/2008	431600	3	76.7	78.6	
9	08/27/2008	432470	5	174.0	96.9	
10	08/29/2008	432550	2	40.0	92.9	
11	09/02/2008	433190	4	160.0	101.3	08/31/2008 432870 gal*
12	09/05/2008	433360	3	56.7	97.4	09/01/2008 433030 gal*
13	09/09/2008	437160	4	950.0	184.9	ADD= (438480 - 433030)gal/30days ADD=181.6 gpd ADD= 181.6 gpd (1/24 hr) (1/60 min) ADD=0.13 gpm
14	09/12/2008	437450	3	96.7	178.6	
15	09/16/2008	437710	4	65.0	168.7	
16	09/19/2008	437840	3	43.3	161.0	
17	09/24/2008	438110	5	54.0	151.1	
18	09/26/2008	438180	2	35.0	147.0	
19	09/30/2008	438480	4	75.0	142.2	
20	10/03/2008	438590	3	36.7	137.1	10/01/2008 4438517 gal*
21	10/10/2008	438920	7	47.1	128.1	ADD= (445840 - 438517)gal/31days ADD=236.2 gpd ADD= 236.2 gpd (1/24 hr) (1/60 min) ADD=0.16 gpm <b>MAXIMUM MONTH</b>
22	10/14/2008	439410	4	122.5	127.8	
23	10/17/2008	439800	3	130.0	127.9	
24	10/21/2008	444950	4	1287.5	185.2	
25	10/22/2008	445340	1	390.0	187.7	
26	10/24/2008	445480	2	70.0	184.9	
27	10/28/2008	445720	4	60.0	179.2	
28	10/31/2008	445840	3	40.0	174.6	
29	11/04/2008	445930	4	22.5	168.2	11/01/2008 445863 gal*
30	11/07/2008	446010	3	26.7	163.9	ADD= (447860 - 445863)gal/30days ADD=66.6 gpd ADD= 66.6 gpd (1/24 hr) (1/60 min) ADD=0.05 gpm
31	11/12/2008	446350	5	68.0	159.2	
32	11/14/2008	446490	2	70.0	157.5	
33	11/18/2008	446810	4	80.0	154.7	
34	11/21/2008	446960	3	50.0	151.9	11/30/2008 447860 gal*
35	12/02/2008	448060	11	100.0	147.2	12/01/2008 447960 gal*
36	12/05/2008	448140	3	26.7	144.4	ADD= (449510 - 447960)gal/31days ADD=50 gpd ADD= 50 gpd (1/24 hr) (1/60 min) ADD=0.03 gpm
37	12/09/2008	448380	4	60.0	141.8	
38	12/12/2008	448500	3	40.0	139.5	
39	12/16/2008	448680	4	45.0	136.7	
40	12/19/2008	448790	3	36.7	134.6	12/31/2008 449510 gal*
41	01/06/2009	449870	18	60.0	126.1	01/01/2009 449570 gal*
42	01/09/2009	449995	3	41.7	124.5	ADD= (451020 - 449570)gal/23days ADD=63 gpd ADD= 63 gpd (1/24 hr) (1/60 min) ADD=0.04 gpm
43	01/13/2009	450290	4	73.8	123.3	
44	01/16/2009	450400	3	36.7	121.7	
45	01/20/2009	450960	4	140.0	122.2	
46	01/23/2009	451020	3	20.0	120.4	

# APPENDIX C

## EPA 625/R-00/008-Chapter 3

### Chapter 3: Establishing treatment system performance requirements

Table 3-3. Residential water use by fixture or appliance<sup>a,b</sup>

Fixture/use	Gal/use: Average range	Uses/person/day: Average range	Gal/person/day: Average range <sup>c</sup>	% Total: Average range
Toilet	3.5 2.9-3.9	5.05 4.5-5.6	18.5 15.7-22.9	26.7 22.6-30.6
Shower	17.2 <sup>d</sup> 14.9-18.6	0.75 <sup>d</sup> 0.6-0.9	11.6 8.3-15.1	16.8 11.8-20.2
Bath	See shower	See shower	1.2 0.5-1.9	1.7 0.9-2.7
Clothes washer	40.5	0.37 0.30-0.42	15 12.0-17.1	21.7 17.8-28.0
Dishwasher	10 9.3-10.6	0.1 0.06-0.13	1 0.6-1.4	1.4 0.9-2.2
Faucets	1.4 <sup>e</sup>	8.1 <sup>f</sup> 6.7-9.4	10.9 8.7-12.3	15.7 12.4-18.5
Leaks	NA	NA	9.5 3.4-17.6	13.7 5.3-21.6
Other Domestic	NA	NA	1.6 0.0-6.0	2.3 0.0-8.5
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>69.3 57.1-83.5</b>	<b>100</b>

<sup>a</sup>Results from AWWARF REUWS at 1,188 homes in 12 metropolitan area. Homes surveyed were served by public water supplies, which operate at higher pressure than private water sources. Leakage rates might be lower for homes on private water supplies.

<sup>b</sup>Results are averages over range. Range is the lowest to highest average for 12 metropolitan areas.

<sup>c</sup>Gal/person/day might not equal gal/use multiplied by uses/person/day because of differences in the number of data points used to calculate means.

<sup>d</sup>Includes shower and bath.

<sup>e</sup>Gallons per minute.

<sup>f</sup>Minutes of use per person per day.

Source: Mayer et al., 1999.

# EPA 625/R-00/008-Chapter 3

## Chapter 3: Establishing treatment system performance requirements

**Table 3-4. Typical wastewater flow rates from commercial sources<sup>a,b</sup>**

Facility	Unit	Flow, gallons/unit/day	
		Range	Typical
Airport	Passenger	2-4	3
Apartment house	Person	40-80	50
Automobile service station <sup>c</sup>	Vehicle served	8-15	12
	Employees	9-15	13
Bar	Customer	1-5	3
	Employees	10-16	13
Boarding house	Person	25-60	40
Department store	Toilet room	400-600	500
	Employee	8-15	10
Hotel	Guest	40-60	50
	Employee	8-13	10
Industrial building (sanitary waste only)	Employee	7-16	13
Laundry (self-service)	Machine	450-650	550
	Wash	45-55	50
Office	Employee	7-16	13
Public lavatory	User	3-6	5
Restaurant (with toilet)	Meal	2-4	3
Conventional Short order	Customer	8-10	9
	Customer	3-8	6
Bar/cocktail lounge	Customer	2-4	3
Shopping center	Employee	7-13	10
	Parking Space	1-3	2
Theater	Seat	2-4	3

[aSome systems serving more than 20 people might be regulated under USEPA's Class V Underground Injection Control \(UIC\) Program. See http://www.epa.gov/safewater/uic.html for more information.](http://www.epa.gov/safewater/uic.html)

<sup>b</sup>These data incorporate the effect of fixtures complying with the U.S. Energy Policy Act (EPACT) of 1994.

[cDisposal of automotive wastes via subsurface wastewater infiltration systems is banned by Class V UIC regulations to protect ground water. See http://www.epa.gov/safewater/uic.html for more information.](http://www.epa.gov/safewater/uic.html)

Source: Crites and Tchobanoglous, 1998.

# EPA 625/R-00/008-Chapter 3

## Chapter 3: Establishing treatment system performance requirements

Table 3-6. Typical wastewater flow rates from recreational facilities<sup>a</sup>

Facility	Unit	Flow, gallons/unit/day	
		Range	Typical
Apartment, resort	Person	50-70	60
Bowling alley	Alley	150-250	200
Cabin, resort	Person	8-50	40
Cafeteria	Customer	1-3	2
	Employee	8-12	10
Camps:			
Pioneer type	Person	15-30	25
Children's, with central toilet/bath	Person	35-50	45
Day, with meals	Person	10-20	15
Day, without meals	Person	10-15	13
Luxury, private bath	Person	75-100	90
Trailer camp	Trailer	75-150	125
Campground-developed	Person	20-40	30
Cocktail lounge	Seat	12-25	20
Coffee Shop	Customer	4-8	6
	Employee	8-12	10
Country club	Guests onsite	60-130	100
	Employee	10-15	13
Dining hall	Meal served	4-10	7
Dormitory/bunkhouse	Person	20-50	40
Fairground	Visitor	1-2	2
Hotel, resort	Person	40-60	50
Picnic park, flush toilets	Visitor	5-10	8
Store, resort	Customer	1-4	3
	Employee	8-12	10
Swimming pool	Customer	5-12	10
	Employee	8-12	10
Theater	Seat	2-4	3
Visitor center	Visitor	4-8	5

<sup>a</sup>Some systems serving more than 20 people might be regulated under USEPA's Class V UIC Program.

Source: Crites and Tchobanoglous, 1998.

## **APPENDIX G**

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### Rare Plant Survey

Administrative Draft  
Special-Status Plant Report  
Hidden Falls Regional Park Project



Prepared by:  
EDAW  
2022 J Street  
Sacramento, CA 95814

November 2007

EDAW | AECOM



Administrative Draft  
Special-Status Plant Report

## Hidden Falls Regional Park Project



Prepared for:

Placer County  
Department of Facility Services  
11476 C Avenue  
Auburn, CA 95603

Contact

Andy Fisher  
(530) 889-6814

Prepared by:

EDAW  
2022 J Street  
Sacramento, CA 95814

Contact:

Petra Unger  
Senior Botanist  
916/414-5800

November 2007

EDAW | AECOM

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## ACRONYMS AND ABBREVIATIONS

CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
DFG	California Department of Fish and Game'
EIR	Environmental Impact Report
GIS	Geographic Information System
NPPA	Native Plant Protection Act
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

# INTRODUCTION

This report describes the methods and results of a focused botanical survey for special-status plant species in the 961-acre Spears Ranch portion of the proposed Hidden Falls Regional Park Project (proposed project) in unincorporated Placer County between North Auburn and the City of Lincoln (Exhibit 1). The proposed project would expand upon the existing 221-acre site (Didion Ranch) to provide facilities for passive recreation (i.e., hiking, biking, horseback riding, etc.) in the entire 1,182-acre property. The surveys covered the entire 961-acre Spears Ranch, hereafter referred to as the study area (Exhibit 2).

The purpose of the special-status plant surveys was to identify occurrences of special-status plants that could be disturbed as a result of proposed project activities including creation of a trail system connecting with existing trails in the neighboring regional park property, and associated miscellaneous passive recreation facilities, increased vehicle access and parking, creation of interpretative, educational, and maintenance facilities and infrastructure, and fish, wildlife, and habitat restoration. The special status survey, in conjunction with a wetland delineation report, was conducted as part of the background environmental documentation for preparation of an Environmental Impact Report (EIR) presently in preparation for the proposed park expansion.

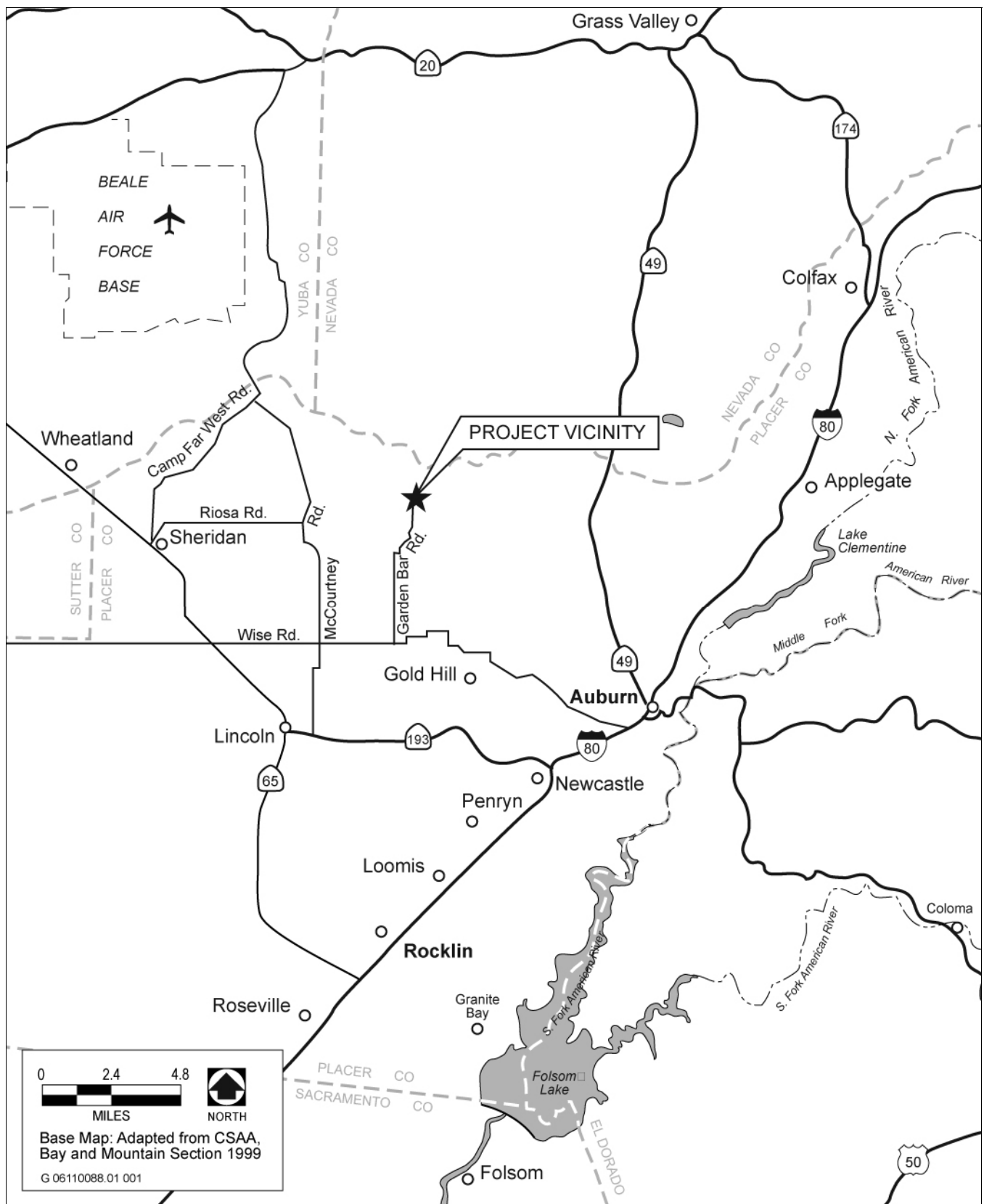
## STUDY AREA DESCRIPTION

The majority of the Spears Ranch portion of Hidden Falls Regional Park consists of gently rolling to steep hills covered by a patchwork of annual grassland and oak woodlands. The areas of upland oak woodland can be divided into three types of woodland based on the dominant oak species. These three communities are interior live oak woodland, blue oak woodland, and black oak woodland. Foothill pine (*Pinus sabiniana*) occurs throughout the property in all woodland types. Other vegetation communities identified include valley foothill riparian woodland and freshwater marsh along Coon Creek and intermittent drainages flowing from the north and the south into Coon Creek.

## METHODS

### PREFIELD INVESTIGATION

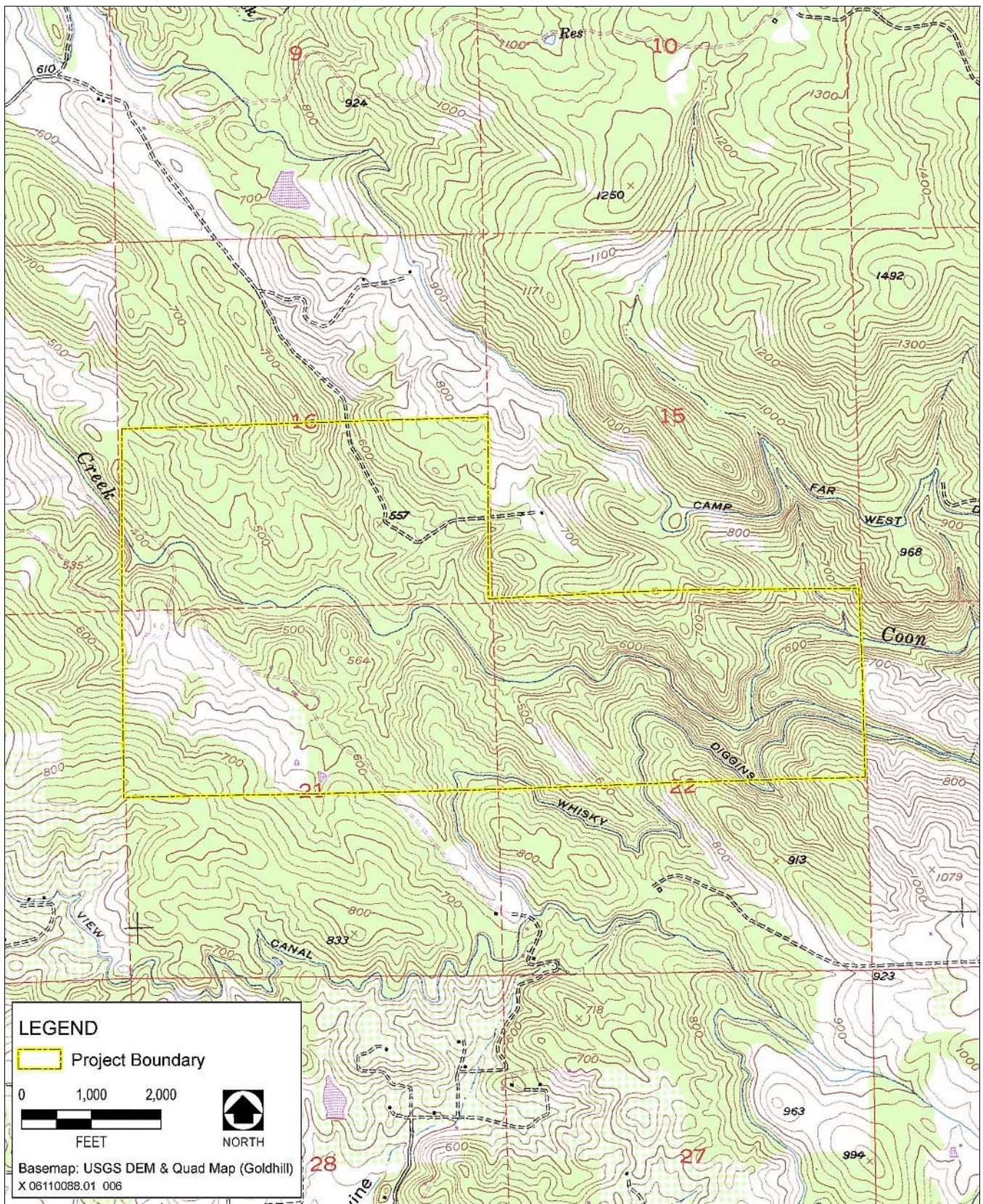
A list of special-status plant species with potential to occur in the study area was compiled by performing database searches of the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2006) and California Department of Fish and Game's (DFG) California Natural Diversity Database (CNDDB 2006). The Gold Hill, Rocklin, Pilot Hill, Auburn, Lake Combie, Wolf, Lincoln, Roseville, and Camp Far West U.S. Geological Survey (USGS) 7.5 minute quadrangles were included in the database record searches.



**Vicinity Map**

**Exhibit 1**





## Study Area Boundary

## Exhibit 2



In order to evaluate the study area's potential to support special-status plant species, aerial photographs of the study area were reviewed to identify areas supporting potentially suitable habitat for special-status plant species. A survey package, including photographs of each target species and their preferred habitats, was prepared prior to the surveys to familiarize field botanists with the characteristics and blooming periods of target plant species. Plant communities present in the study area were mapped from aerial photograph interpretation and were ground truthed during preliminary field surveys. The plant community polygons were later digitized onto a Geographic Information System (GIS) overlay and used to create a map exhibit showing the location and extent of each plant community present in the study area. Plant community classification is based on the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986).

## FIELD SURVEYS

EDAW botanists Mark Bibbo and Sarah Bennett conducted focused special-status plant surveys on May 10, 25, 30, and 31. The protocol for the special-status plant surveys followed DFG's "*Guidelines for Assessing the Effects of Proposed Development on Rare, Threatened, and Endangered Plants and Plant Communities*" (DFG 2000) and U.S. Fish and Wildlife Service (USFWS) *Guidelines for conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000), which involve using systematic field techniques in all habitats in the study area to ensure thorough coverage of potential impact areas. The botanists covered the entire Spears ranch property with special attention given to the habitats present in the study area with greater potential for containing occurrences of the target plant species. A reference population of Brandegees' clarkia present at Lake Clementine on the North Fork of the American River to the south of the study area was visited prior to the surveys on May 10<sup>th</sup> to confirm that the species was flowering and to familiarize the surveyors with the distinguishing characteristics and habitat requirements of this species and to observe typical associated species. All plants encountered during the surveys were identified to the highest taxonomic level necessary for a rare plant determination. Nomenclature used follows the Jepson Manual Higher Plants of California (Hickman 1993).

The locations of all special-status plants encountered were mapped by hand as either points or polygons onto aerial photographs of the study area (scale 1" = 400'). In addition, GIS coordinates were recorded for each location while in the field. These location points and polygons were later digitized onto a GIS overlay to produce a map of the distribution and extent of special-status plant populations in the study area. Locations that were mapped separately from one another were distinguished based on spatial distribution, as well as differences in common associated species and habitat type. Notes on habitat, topography, aspect, phenology, and associated species of the special-status plant species identified were recorded on California Native Species Field Survey Forms to be submitted to the CNDDDB upon completion of the final survey report. Representative photographs of the special-status plant species encountered in the study area were taken.

# RESULTS

## PREFIELD INVESTIGATION RESULTS

Special-status plants are defined as plants that are legally protected or that are otherwise considered sensitive by federal, state or local resource conservation agencies and organizations. Special-status plants are species, subspecies or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- ▶ Officially listed by the state of California or the federal government as Endangered, Threatened or Rare;
- ▶ A candidate for state or federal listing as Endangered, Threatened or Rare;
- ▶ Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the California Environmental Quality Act (CEQA) Guidelines;
- ▶ Taxa designated as a special-status, sensitive or declining species by other state or federal agencies or non-governmental organizations; and
- ▶ Taxa considered by the CNPS to be “rare, threatened or endangered in California” (Lists 1B and 2).

The CNPS Inventory includes five lists for categorizing plant species of concern, which are summarized below. The plants listed on CNPS lists 1A, 1B, and 2 meet the definitions of Section 1901, Chapter 10 of the Native Plant Protection Act (NPPA) or Sections 2062 and 2067 (California Endangered Species Act [CESA]) of the California Department of Fish and Game Code and may qualify for state listing. Therefore, they are considered rare plants pursuant to Section 15380 of CEQA. DFG recommends and local government agencies may require that they be fully considered during preparation of environmental documents pursuant to CEQA. Some of the plants constituting CNPS Lists 3 and 4 meet the definitions of Section 1901, Chapter 10 or Sections 2062 and 2067 of the DFG Code and are eligible for state listing. DFG recommends, and local governments may require, that CNPS List 3 and List 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA (DFG 2000). The CNPS lists are categorized as follows:

- ▶ List 1A - plants presumed extinct in California;
- ▶ List 1B - plants rare, threatened, or endangered in California and elsewhere;
- ▶ List 2 - plants rare, threatened, or endangered in California but more common elsewhere;
- ▶ List 3 - plants about which we need more information - a review list; and
- ▶ List 4 - plants of limited distribution - a watch list.

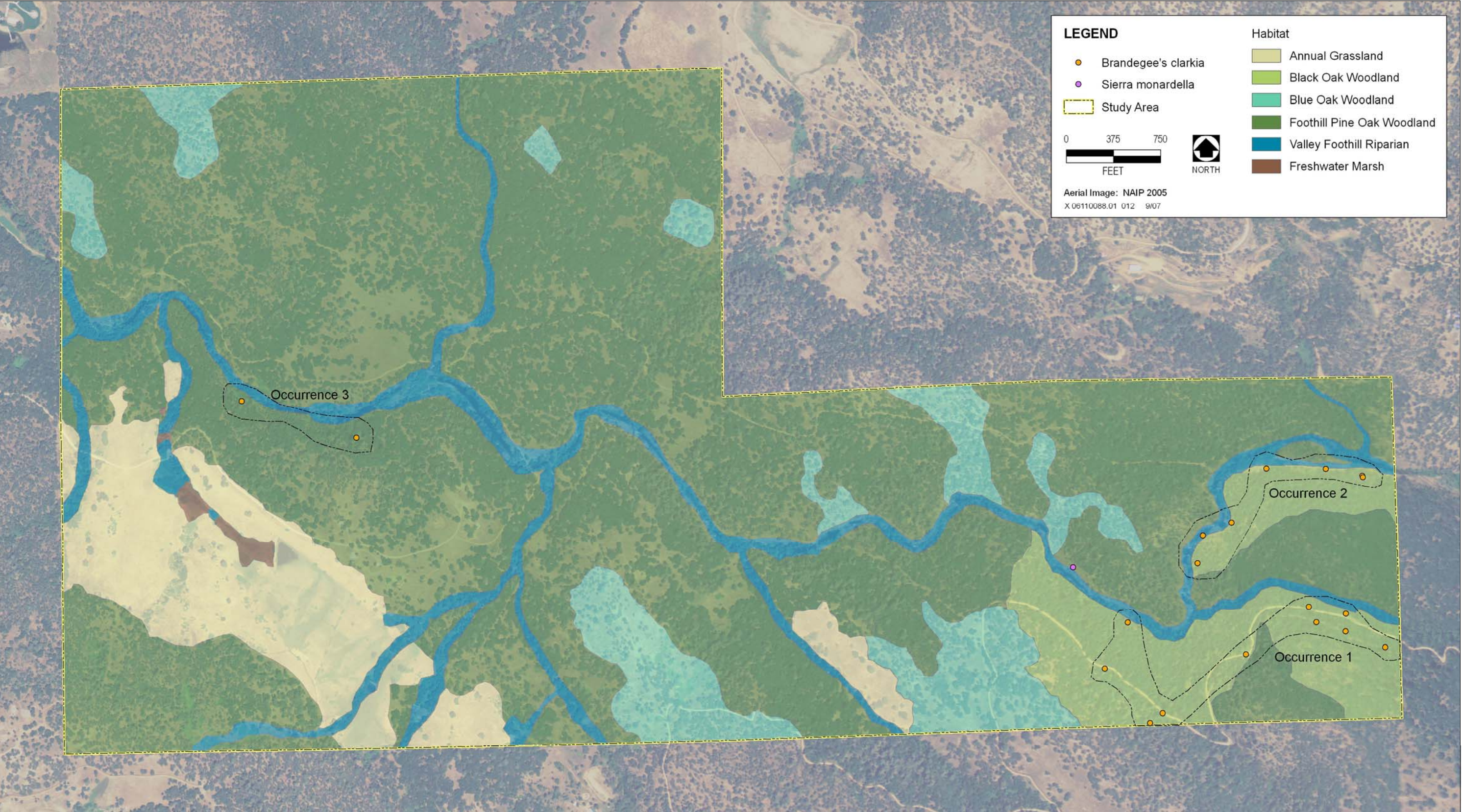
Searches of the CNPS and CNDDDB databases identified 19 special-status plant species as occurring in the vicinity of the study area. Seventeen of these species were identified as having no potential to occur in the study area due to narrow substrate requirements or geographical distributions and were therefore excluded from further analysis. Stebbin's morning glory (*Calystegia stebbinsii*), Pine Hill ceanothus (*Ceanothus roderickii*), El Dorado bedstraw (*Galium californicum* ssp. *sierrae*), Red Hills soap root (*Chlorogalum grandiflorum*), and El Dorado County mule ears (*Wyethia reticulata*) are restricted to gabbro soils in El Dorado and Nevada counties. Jepson's onion (*Allium jepsonii*) and big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) are found on serpentine soils, which do not occur in the study area. Dwarf Downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*), legenere, (*Legenere limosa*), and pincushion navarretia (*Navarretia myersii* spp. *myersii*) occur in vernal pool habitats, which don't occur in the study area. Hispid bird's-beak (*Cordylanthus mollis* ssp. *hispidus*) in Placer County occurs in damp alkaline meadows at about 150 feet elevation. These conditions are not present in the study area. Butte county fritillary (*Fritillaria eastwoodiae*) primarily occurs in the northern foothills of the Sierra and Cascade ranges. The southernmost known occurrences are found north of the study area in Yuba County where they are occur at higher elevations in Ponderosa Pine forest.

Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*) and oval-leaved viburnum (*Viburnum ellipticum*) are the two special-status plant species identified during the pre-field investigation as having potential to occur in the study area. These two species were targeted during on-site surveys. In addition, Sierra monardella (*Monardella candicans*), a CNPS List 4 plant that had not been previously observed in the area, was observed during field surveys. Table 1 summarizes the regulatory status, habitat, and blooming period of Brandegee's clarkia, Sierra Monardella, and oval-leaved viburnum. Habitat and elevation range information for these species was obtained from the CNPS Electronic Inventory (2006) and *The Jepson Manual Higher Plants of California* (Hickman 1993).

## FIELD SURVEY RESULTS

Plant communities mapped in the study area are described below and a comprehensive plant species list of all taxa observed is included in Appendix A. Two special-status plant species Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*), a CNPS List 1b plant, and Sierra monardella (*Monardella candicans*), a CNPS List 4 plant, were documented within the study area during field surveys. A total of twenty populations of Brandegee's clarkia and one population of Sierra monardella were recorded and mapped (Exhibit 3). The CNDDDB and CNPS consider plants located within 0.25 mile of each other as single occurrences. CNDDDB data forms for special-status plant occurrences are provided in Appendix B and are cross-referenced to the special-status plant locations shown in





Source: EDAW 2007

Plant Communities and Locations of Special-Status Plant Occurrences in the Study Area

Exhibit 3



Table 1 Special-Status Plants With Potential to Occur in the Hidden Falls Regional Park Study Area					
Species	Status 1			Habitat and Blooming Period	Potential for Occurrence
	USFWS	DFG	CNPS		
Plants					
Brandegee’s clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i>	—	—	1B	Chaparral, cismontane woodland; often in road cuts; 700 to 3,000 feet elevation; blooms May to July	<b>Known to occur:</b> This species was identified in the study area during the focused botanical surveys.
Sierra monardella <i>Monardella candicans</i>	—	—	4	Sandy or gravelley soils in chaparral, cismontane woodland, and lower montane coniferous forest; 450 to 2,700 feet elevation; blooms April to July	<b>Known to occur:</b> This species was identified in the study area during the focused botanical surveys.
Oval-leaved viburnum <i>Viburnum ellipticum</i>	—	—	2	Chaparral, cismontane woodland or lower montane coniferous forest; 600 to 4,000 feet elevation; blooms May to June	<b>Could occur:</b> the majority of the survey area is below the elevation range of this species where it occurs in the central foothills, but associated species and potential habitat do occur on the site; not found during focused special-status plant surveys.
1 Legal Status Definitions U.S. Fish and Wildlife Service (USFWS): T Federal Threatened E Federal Endangered  California Department of Fish and Game (DFG): R Rare T Threatened E Endangered				California Native Plant Society (CNPS) Listing Categories: 1B Plants rare, threatened, or endangered in California and elsewhere 2 Plants rare, threatened, or endangered in California but more common elsewhere 3 Plants for which more information is needed – a review list 4 Plants of limited distribution – a watch list	
Sources: CNDDB 2006, CNPS 2006, Hickman 1993					

Exhibit 3. Representative photographs of Brandegee's clarkia and the habitat in which it was encountered are provided in Appendix C. A description of the special-status plant species encountered, including their habitat and distribution in the study area, is provided below.

## PLANT COMMUNITIES

### BLUE OAK WOODLAND

Blue oak woodland occurs on moderate slopes near the tops of ridges in the study area. This oak woodland type is typically more savannah-like and is characterized by more evenly spaced and larger individual blue oaks. Interior live oak and foothill pine may also be present. The shrub layer is typically absent and the understory is

characterized by a dense cover of non-native grasses and forbs, such as bromes (*Bromus diandrus* and *B. hordeaceus*), wild oat (*Avena fatua*), foxtail barley (*Hordeum murinum* ssp. *murinum*), medusahead (*Taeniatherum caput-medusae*), cut-leaved geranium (*Geranium dissectum*), and Italian thistle (*Carduus pycnocephalus*).

## BLACK OAK WOODLAND

Black oak woodland is found on steep north-facing slopes in the southeast portion of the property. This woodland type is characterized by a dense canopy that is at least 50 percent relative cover of black oak (*Quercus kelloggii*) with interior live oak and blue oak also present. Scattered ponderosa pine (*Pinus ponderosa*) is also present as an emergent tree. The shrub layer is usually dense and is characterized by species such as toyon (*Heteromeles arbutifolia*), hoary coffeeberry (*Rhamnus tomentella*), and poison oak. The herb layer is usually sparse and contains mix of native and non-native grasses and forbs. Native grasses and forbs found in the understory of the black oak woodland include blue wild rye (*Elymus glaucus*), woodland brome (*Bromus laevipes*), California melicgrass (*Melica californica*), yarrow (*Achillea millefolium*), and twining Brodiaea (*Dichelostemma volubile*). The populations of Brandegee's clarkia were primarily located in this oak woodland type.

## ANNUAL GRASSLAND

Annual grassland occurs in a few large grazed clearings. Annual grassland is an herbaceous plant community characterized by dense cover of nonnative annual grasses with numerous species of nonnative annual forbs, as well as some native wildflowers. Typical grass species include bromes, wild oat, foxtail barley, medusahead, and Italian ryegrass (*Lolium multiflorum*). Common nonnative forbs observed include cut-leaved geranium, filaree (*Erodium botrys*), blessed milk thistle (*Silybum marianum*), lesser hawkbit (*Leontodon taraxacoides*), and rose clover (*Trifolium hirtum*). Native wildflowers such as rusty popcorn flower (*Plagiobothrys nothofulvus*), Ithuriel's spear (*Triteleia laxa*), harvest brodiaea (*Brodiaea elegans*), blow-wives (*Achyraea mollis*), caterpillar phacelia (*Phacelia cicutaria*), and native clovers (*Trifolium* spp.) are also present.

## VALLEY FOOTHILL RIPARIAN WOODLAND

Valley foothill riparian woodland occurs along the banks of Coon creek, Deadman creek, and the intermittent drainages that have surface water for the majority of the year. These deciduous woodlands are dominated in the tree canopy by Fremont cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*) and white alder (*Alnus rhombifolia*). Shining willow (*Salix lucida* var. *lasiandra*), red willow (*Salix laevigata*), and Oregon ash (*Fraxinus latifolia*) may also occur in the tree layer. Shrubs and lianas, such as California grape (*Vitis californica*), arroyo willow (*Salix lasiolepis*), and Himalayan blackberry (*Rubus discolor*) form a dense understory layer, along with wetland herbaceous species such as torrent sedge (*Carex nudata*), mugwort (*Artemisia douglasiana*), and horsetail (*Equisetum arvense*) occurring along the water's edges.

## FRESHWATER MARSH

Freshwater marsh occurs in saturated soils on the fringes of the stock ponds and in spots along the intermittent drainages in the study area. The vegetation is characterized by obligate wetland herbaceous species such as spikerushes (*Eleocharis acicularis* and *Eleocharis macrostachya*), rushes (*Juncus effusus* and *Juncus bufonius*), cattails (*Typha angustifolia*) and smartweed (*Polygonum lapathifolium*). Often this vegetation is surrounded by woody riparian shrubs such as arroyo willow, Himalayan blackberry and western dogwood (*Cornus sericea*).

## RESULTS BY SPECIES

### BRANDEGEE'S CLARKIA (*CLARKIA BILOBA* SSP. *BRANDEGEEAE*)

Brandegee's clarkia, a member of the evening primrose family, is a CNPS List 1B plant. It was previously listed as a USFWS Species of Concern, however as of May 2006, the USFWS no longer maintains lists of Species of Concern. Brandegee's clarkia is found in the central Sierra Nevada foothills between 804 and 2,904 feet above mean sea level in chaparral and woodland habitats, often on road-cuts. It is an annual herb with rose-pink flowers that blooms from May to July. The feature that distinguishes this subspecies from the other two subspecies of *Clarkia biloba* is the length of the notch at the tip of the petal. In Brandegee's clarkia, the notch is less than 1/5 of the petal length.

Brandegee's clarkia was encountered during this special-status plant surveys throughout the study area on steep north-facing slopes in openings in the black oak woodlands. Populations of Brandegee's clarkia were abundantly distributed throughout the southeastern corner of the property. Information of these occurrences was summarized in three CNDDB records included in Appendix B of this report. Brandegee's clarkia was most typically found on steep north facing slopes in the shade and openings of black oak and foothill pine-oak woodland where common associated species included hedgehog dogtail (*Cynosorus echinatus*), field hedge parsley (*Torilis arvensis*), poison oak (*Toxicodendron diversilobum*), blue wild rye (*Elymus glaucus*), and white globe lily (*Calochortus albus*). Many of the populations are found on the roadcuts along Whiskey Diggins canal and the associated road. Due to the abundance of the Brandegee's clarkia population on the property as well as the fact that they occur on areas of previous disturbance, proposed project activities associated with the expansion of recreation facilities are unlikely to have an overall adverse affect on the viability of this species in the study area.

## SIERRA MONARDELLA

Sierra monardella (*Monardella candicans*), a member of the mint family, is a CNPS list 4 plant. It is a small, annual plant with half inch heads of white flowers that bloom from April to July. Sierra monardella grows on sandy or gravelly soils in oak woodland, chaparral, and ponderosa pine forest throughout the Sierra Nevada foothills.

Sierra monardella was not identified in the pre-field investigation as a potential target special status plant species for the survey because no records currently exist in the CNDDDB for the species. A single population of the species was located in the study area (Exhibit 3). Sierra monardella was found in the opening of Foothill Pine-Oak woodland on the north side of Coon creek. The surrounding plant community is moderately dense annual grassland on a low gradient southwest facing terrace above the creek. Associated species included species typical of the annual grassland and surrounding woodlands such as bromes (*Bromus* spp.), lupines (*Lupinus* sp.), smooth cat's ears (*Hypochaeris glabra*), four spot (*Clarkia purpurea*), Ithuriel's spear (*Triteleia laxa*), needleleaf navarretia (*Navarretia intertexta*), and brodiaea (*Brodiaea elegans*).

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- California Department of Fish and Game (DFG). 2000. Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities. (Revision of 1983 Guidelines) Sacramento, CA.
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## **APPENDIX A**

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### Plant Species Observed in the Study Area

## APPENDIX A

### PLANT SPECIES OBSERVED IN THE STUDY AREA

<b>Table 1</b> <b>Plant Species Observed in the Study Area</b>	
<i>Scientific Name</i>	<b>Common Name</b>
<i>Adiantum jordanii</i>	California maidenhair fern
<i>Aesculus californica</i>	California buckeye
<i>Agoseris heterophylla</i>	annual agoseris
<i>Ailanthus altissima</i>	tree-of-heaven
<i>Alisma plantago-aquatica</i>	American waterplantain
<i>Allium amplexans</i>	narrow leaved onion
<i>Allium peninsulare</i>	Mexicali onion
<i>Alnus rhombifolia</i>	white alder
<i>Ambrosia psilostachya</i>	western ragweed
<i>Amsinckia menziesii</i> var. <i>intermedia</i>	fiddleneck
<i>Anaphalis margaritacea</i>	pearly everlasting
<i>Anthemis cotula</i>	dog-fennel
<i>Anthriscus caucalis</i>	Bur-chervil
<i>Aphanes occidentalis</i>	western lady's mantle
<i>Aristolochia californica</i>	California pipevine
<i>Artemisia douglasiana</i>	mugwort
<i>Asclepias cordifolia</i>	purple milkweed
<i>Asclepias eriocarpa</i>	Indian milkweed
<i>Baccharis pilularis</i>	coyote brush
<i>Baccharis salicifolia</i>	mulefat
<i>Bidens frondosa</i>	beggar ticks
<i>Brachypodium distachyon</i>	false brome
<i>Brickellia californica</i>	brickelbush
<i>Briza maxima</i>	rattlesnake grass
<i>Briza minor</i>	little quaking grass
<i>Bromus diandrus</i>	ripgut brome
<i>Bromus hordeaceus</i>	soft chess
<i>Bromus japonicus</i>	Japanese brome
<i>Bromus laevipes</i>	woodland brome
<i>Bromus madritensis</i> var. <i>madritensis</i>	red brome
<i>Bromus madritensis</i> var. <i>rubens</i>	foxtail chess

**Table 1**  
**Plant Species Observed in the Study Area**

<i>Scientific Name</i>	<i>Common Name</i>
<i>Calandrinia ciliata</i>	red maids
<i>Calochortus albus</i>	white globelily
<i>Calochortus luteus</i>	yellow mariposa lily
<i>Calystegia occidentalis</i>	western morning-glory
<i>Cardamine oligosperma</i>	Idaho bittercress
<i>Carduus pycnocephalus</i>	Italian thistle
<i>Carex barbarae</i>	valley sedge
<i>Carex nudata</i>	torrent sedge
<i>Carex praegracilis</i>	slender sedge
<i>Castilleja attenuata</i>	valley tassels
<i>Centaurea solstitialis</i>	yellow star-thistle
<i>Centaureum muehlenbergii</i>	Muhlenberg's centaury
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Cerastium glomeratum</i>	mouse-ear chickweed
<i>Cercis occidentalis</i>	redbud
<i>Chondrilla juncea</i>	skeleton weed
<i>Cichorium intybus</i>	chicory
<i>Clarkia biloba</i> ssp. <i>brandegeae</i>	Brandegee's clarkia
<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i>	four-spot
<i>Claytonia parviflora</i>	streambank springbeauty
<i>Claytonia perfoliata</i>	miner's lettuce
<i>Clematis lasianthus</i>	virgins bower
<i>Conium maculatum</i>	poison hemlock
<i>Cornus glabrata</i>	brown dogwood
<i>Cynodon dactylon</i>	Bermuda grass
<i>Cynosurus echinatus</i>	hedgehog dogtail
<i>Daucus pusillus</i>	rattlesnake weed
<i>Dichelostemma capitatum</i>	blue dicks
<i>Eleocharis acicularis</i>	needle spikerush
<i>Eleocharis macrostachya</i>	creeping spikerush
<i>Elymus glaucus</i>	blue wild rye
<i>Ericameria arborescens</i>	goldenfleece
<i>Erigeron foliosus</i> var. <i>hartwegii</i>	Hartweg's fleabane
<i>Erigeron philadelphicus</i>	Philadelphia fleabane

**Table 1**  
**Plant Species Observed in the Study Area**

<i>Scientific Name</i>	<i>Common Name</i>
<i>Eriophyllum lanatum</i>	woolly sunflower
<i>Erodium botrys</i>	braodleaf filaree
<i>Eryngium vaseyi</i>	coyote thistle
<i>Eschscholzia caespitosa</i>	foothill poppy
<i>Eschscholzia californica</i>	California poppy
<i>Euphorbia spathulata</i>	warty spurge
<i>Euthamia occidentalis</i>	western goldenrod
<i>Festuca arundinacea</i>	reed fescue
<i>Ficus carica</i>	fig
<i>Filago gallica</i>	filago
<i>Galium aparine</i>	bedstraw
<i>Galium murale</i>	yellow wall bedstraw
<i>Galium porrigens</i>	climbing bedstraw
<i>Gastridium ventricosum</i>	nitgrass
<i>Geranium dissectum</i>	cut-leaved geranium
<i>Geranium molle</i>	dove's foot geranium
<i>Gilia capitata</i>	blue head gilia
<i>Githopsis specularioides</i>	common blue-cup
<i>Glyceria declinata</i>	waxy mannagrass
<i>Gnaphalium luteo-album</i>	everlasting-album
<i>Grindelia hirsutula</i>	hairy gumweed
<i>Helenium puberulum</i>	sneezeweed
<i>Heteromeles arbutifolia</i>	toyon
<i>Hoita macrostachya</i>	leather root
<i>Hypericum perforatum</i>	St. Johnswort
<i>Hypochaeris glabra</i>	smooth cat's ear
<i>Iris pseudacorus</i>	paleyellow iris
<i>Juncus bufonius</i>	common toad rush
<i>Juncus effusus</i>	common rush
<i>Keckiella brevifolia</i>	gaping keckiella
<i>Lactuca serriola</i>	prickly lettuce
<i>Lemna minor</i>	duckweed
<i>Lepidium nitidum</i>	common peppergrass
<i>Linanthus bicolor</i>	bicolor linanthus



**Table 1**  
**Plant Species Observed in the Study Area**

<i>Scientific Name</i>	<i>Common Name</i>
<i>Linanthus ciliatus</i>	whisker brush
<i>Linum usitatissimum</i>	common flax
<i>Lolium multiflorum</i>	Italian ryegrass
<i>Lonicera hispidula</i>	hairy honeysuckle
<i>Lonicera interrupta</i>	chaparral honeysuckle
<i>Ludwigia peploides</i>	false loosestrife
<i>Lupinus microcarpus</i>	chick lupine
<i>Lupinus nanus</i>	sky lupine
<i>Luzula comosa</i>	wood rush
<i>Madia elegans</i> ssp. <i>vernalis</i>	common tarweed
<i>Madia gracilis</i>	slender tarweed
<i>Medicago polymorpha</i>	bur-clover
<i>Melica californica</i>	California melicgrass
<i>Mentha arvensis</i>	field mint
<i>Micropus californicus</i>	slender cottonweed
<i>Mimulus guttatus</i>	seep monkeyflower
<i>Monardella candicans</i>	Sierra monardella
<i>Monardella villosa</i>	coyote mint
<i>Nassella pulchra</i>	purple needlegrass
<i>Navarretia intertexta</i>	needleleaf navarretia
<i>Navarretia tagetina</i>	marigold navarretia
<i>Nemophila pedunculata</i>	littlefoot nemophila
<i>Odontostomum hartwegii</i>	Hartweg's odontostomum
<i>Panicum capillare</i>	witchgrass
<i>Parentucellia viscosa</i>	yellow glandweed
<i>Pentagramma triangularis</i>	goldenback fern
<i>Perideridia kelloggii</i>	squawroot
<i>Phacelia cicutaria</i>	caterpillar phacelia
<i>Phlox gracilis</i>	slender phlox
<i>Plagiobothrys nothofulvus</i>	popcornflower
<i>Plagiobothrys stipitatus</i> var. <i>micranthus</i>	stalked popcorn flower
<i>Plantago lanceolata</i>	English plantain
<i>Plectritis macrocera</i>	white plectritis
<i>Poa annua</i>	annual blue grass

**Table 1**  
**Plant Species Observed in the Study Area**

<i>Scientific Name</i>	<i>Common Name</i>
<i>Poa pratensis</i>	Kentucky bluegrass
<i>Polygala cornuta</i>	milkwort
<i>Polygonum arenastrum</i>	common knotweed
<i>Polygonum punctatum</i>	water smartweed
<i>Polypodium calirhiza</i>	nested polypody
<i>Populus alba</i>	white poplar
<i>Populus fremontii</i>	Fremont's cottonwood
<i>Prunella vulgaris</i>	common selfheal
<i>Pteridium aquilinum</i> var. <i>pubescens</i>	bracken fern
<i>Quercus douglasii</i>	blue oak
<i>Quercus kelloggii</i>	black oak
<i>Quercus lobata</i>	Valley Oak
<i>Quercus wislizeni</i>	interior live oak
<i>Ranunculus californicus</i>	California buttercup
<i>Rhamnus ilicifolia</i>	redberry
<i>Rhamnus tomentella</i>	hoary coffeeberry
<i>Rorippa nasturtium-aquaticum</i>	watercress
<i>Rubus discolor</i>	Himalayan blackberry
<i>Rumex crispus</i>	curly dock
<i>Rumex pulcher</i>	fiddledock
<i>Salix exigua</i>	sandbar willow
<i>Salix laevigata</i>	red willow
<i>Salix lasiolepis</i>	arroyo willow
<i>Sanicula bipinnatifida</i>	purple sanicle
<i>Sanicula crassicaulis</i>	Pacific sanicle
<i>Scirpus acutus</i>	hardstem bulrush
<i>Selaginella hansenii</i>	Hansen's spikemoss
<i>Senecio vulgare</i>	old-man-in-the-spring
<i>Sherardia arvensis</i>	field madder
<i>Silene gallica</i>	catchfly
<i>Silybum marianum</i>	blessed milkthistle
<i>Solidago californica</i>	California goldenrod
<i>Stachys albens</i>	White Hedge nettle
<i>Thysanocarpus curvipes</i>	common fringe-pod

**Table 1**  
**Plant Species Observed in the Study Area**

<i>Scientific Name</i>	<i>Common Name</i>
<i>Torilis arvensis</i>	field hedge parsley
<i>Toxicodendron diversilobum</i>	poison oak
<i>Trifolium ciliolatum</i>	foothill clover
<i>Trifolium dubium</i>	shamrock clover
<i>Trifolium hirtum</i>	red clover
<i>Trifolium subterraneum</i>	Subterranean Clover
<i>Trifolium willdenovii</i>	tomcat clover
<i>Triteleia bridgesii</i>	Bridges' Brodiaea
<i>Triteleia laxa</i>	Ithuriel's spear
<i>Triticum aestivum</i>	common wheat
<i>Typha angustifolia</i>	narrow-leaf cattail
<i>Urtica dioica</i>	stinging nettle
<i>Verbascum blattaria</i>	moth mullein
<i>Verbena bonariensis</i>	South American vervain
<i>Vicia sativa</i>	spring vetch
<i>Vinca major</i>	vinca
<i>Vitis californica</i>	California grape
<i>Vulpia bromoides</i>	brome fescue
<i>Vulpia microstachys</i>	small fescue
<i>Vulpia myuros</i>	foxtail fescue
<i>Wyethia angustifolia</i>	narrowleaf mule ears
<i>Xanthium strumarium</i>	cocklebur

## **APPENDIX B**

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California Department of Fish and Game  
California Natural Diversity Data Forms

Mail to:  
California Natural Diversity Database  
Department of Fish and Game  
1807 13<sup>th</sup> Street, Suite 202  
Sacramento, CA 95814  
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

Date of Field Work (mm/dd/yyyy): 05/31/2007

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Clarkia biloba* var. *brandeegae*

Common Name: Brandegee's clarkia

Species Found? ☒ Yes ☐ No If not, why? \_\_\_\_\_  
Total No. Individuals +/- 3000 Subsequent Visit? ☐ yes ☒ no  
Is this an existing NDDB occurrence? ☒ no ☐ unk.  
Yes, Occ. # \_\_\_\_\_  
Collection? If yes: yes Not yet deposited, likely DAV  
Number Museum / Herbarium

Reporter: Mark Bibbo  
Address: 2022 J Street  
Sacramento, CA  
E-mail Address: mark.bibbo@edaw.com  
Phone: (916) 414-5800

Plant Information

Phenology: \_\_\_\_\_% vegetative 100% flowering \_\_\_\_\_% fruiting

Animal Information

# adults # juveniles # larvae # egg masses # unknown  
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Hidden Falls Regional Park, On the Spears Ranch property, close to Coon Creek, about 0.25 mile due north of the large stock pond in the middle of the property.

County: Placer County Landowner / Mgr.: Placer County  
Quad Name: Gold Hill Elevation: 430 ft.  
T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: ☐ H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo. map & type): GPS  
T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: ☐ H ☐ M ☐ S ☐ GPS Make & Model Thales Mobile Mapper  
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy 1 m \_\_\_\_\_ meters/feet  
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒  
Coordinates: 38.9707°  
-121.204° Refers to Occurrence #2 on map

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Steep north facing slope in the shade of Black oak-Interior Live Oak-Foothill Pine woodland. Growing with *Cynosorus echinatus*, *Torilis arvensis*, *Toxicodendron diversilobum*, *Elymus glaucus*, and *Calochortus albus*.

Other rare taxa seen at THIS site on THIS date:  
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: Grazing, recreation (hiking/equestrian trails)

Visible disturbances:

Threats: Grazing, non-native invasive weeds:

Comments: This occurrence consists of numerous clumps of hundreds of individuals in a similar position on the slope stretching for about a quarter mile on either side of the GPS point.

Determination: (check one or more, and fill in blanks)

☒ Keyed (cite reference): Jepson  
☒ Compared with specimen housed at: DAV  
☒ Compared with photo / drawing in: Cal Photos  
☐ By another person (name): \_\_\_\_\_  
☐ Other: \_\_\_\_\_

Photographs: (check one or more) Slide Print Digital  
Plant / animal ☐ ☐ ☒  
Habitat ☐ ☐ ☒  
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☒ no ☐

Mail to:  
California Natural Diversity Database  
Department of Fish and Game  
1807 13<sup>th</sup> Street, Suite 202  
Sacramento, CA 95814

Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

Date of Field Work (mmdd/yyyy): 05/24/2007

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Clarkia biloba* var. *brandeegae*

Common Name: Brandegee's clarkia

Species Found? ☒ Yes ☐ No If not, why? \_\_\_\_\_  
Total No. Individuals +/- 5,000 Subsequent Visit? ☐ yes ☒ no  
Is this an existing NDDDB occurrence? ☒ no ☐ unk.  
Yes, Occ. # \_\_\_\_\_  
Collection? If yes: yes Not yet deposited, likely DAV  
Number Museum / Herbarium

Reporter: Mark Bibbo  
Address: 2022 J Street  
Sacramento, CA  
E-mail Address: mark.bibbo@edaw.com  
Phone: (916) 414-5800

Plant Information

Phenology: \_\_\_\_\_% vegetative \_\_\_\_\_% flowering \_\_\_\_\_% fruiting

Animal Information

# adults # juveniles # larvae # egg masses # unknown  
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Hidden Falls Regional Park, On the Spears Ranch property, in the southeastern portion of the property, along Whiskey Diggins canal.

County: Placer County Landowner / Mgr.: Placer County  
Quad Name: Gold Hill Elevation: 707 ft.  
T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo. map & type): GPS  
T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model: Thales Mobile Mapper  
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy: 1 m \_\_\_\_\_ meters/feet  
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒  
Coordinates: 38.9657°  
-121.175° Refers to Occurrence No. 1 on map.

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Steep north facing slope in the shade and openings of Black oak-Interior Live Oak-Foothill Pine woodland. Growing with *Heteromeles arbutifolia*, *Aesculus californica*, *Cynosorus echinatus*, *Torilis arvensis*, *Allium peninsulare* and *Pentagramma triangularis*.

Other rare taxa seen at THIS site on THIS date:  
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☒ Excellent ☐ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: Grazing, recreation (hiking/equestrian trails)

Visible disturbances:

Threats: Grazing, non-native invasive weeds.

Comments: This occurrence consists of numerous clumps of hundreds of individuals on the road cuts along the irrigation canal and the road that follows it, as well as on the north facing slopes on either side of the road cuts. These sub-populations of *Clarkia* occur all along the road in this southeastern portion of the property.

Determination: (check one or more, and fill in blanks)

☒ Keyed (cite reference): Jepson  
☒ Compared with specimen housed at: DAV  
☒ Compared with photo / drawing in: Cal Photos  
☐ By another person (name):  
☐ Other:

Photographs: (check one or more) Slide Print Digital  
Plant / animal ☐ ☐ ☒  
Habitat ☐ ☐ ☒  
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☒ no ☐

Mail to:  
California Natural Diversity Database  
Department of Fish and Game  
1807 13<sup>th</sup> Street, Suite 202  
Sacramento, CA 95814

Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

Date of Field Work (mm/dd/yyyy): 05/31/2007

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Clarkia biloba* var. *brandeegae*

Common Name: Brandegee's clarkia

Species Found? ☒ Yes ☐ No If not, why?  
Total No. Individuals +/- 10,000 Subsequent Visit? ☐ yes ☒ no  
Is this an existing NDDB occurrence? ☒ no ☐ unk.  
Yes, Occ. #  
Collection? If yes: yes Not yet deposited, likely DAV  
Number Museum / Herbarium

Reporter: Mark Bibbo  
Address: 2022 J Street  
Sacramento, CA  
E-mail Address: mark.bibbo@edaw.com  
Phone: (916) 414-5800

Plant Information

Phenology: \_\_\_\_\_% vegetative 100% flowering \_\_\_\_\_% fruiting

Animal Information

# adults # juveniles # larvae # egg masses # unknown  
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Hidden Falls Regional Park, On the Spears Ranch property, at the east end, on the south side of Coon Creek.

County: Placer County Landowner / Mgr.: Placer County  
Quad Name: Gold Hill Elevation: 580 ft.  
T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo. map & type): GPS  
T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model Thales Mobile Mapper  
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy 1 m \_\_\_\_\_ meters/feet  
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒  
Coordinates: 38.9679°  
-121.177° Refers to Occurrence No 3 on Map.

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Steep north facing slope in the shade and openings of Black oak-Interior Live Oak-Foothill Pine woodland. Growing with *Heteromeles arbutifolia*, *Toxicodendron diversilobum*, *Cynosorus echinatus*, *Torilis arvensis*, *Achillea millefolium* and *Clarkia purpurea*.

Other rare taxa seen at THIS site on THIS date:  
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: Grazing, recreation (hiking/equestrian trails)

Visible disturbances:

Threats: Grazing, non-native invasive weeds.

Comments: This occurrence consists of numerous clumps of hundreds of individuals at the base of this slope stretching for about a half a mile on either side of the GPS point.

Determination: (check one or more, and fill in blanks)

☒ Keyed (cite reference): Jepson  
☒ Compared with specimen housed at: DAV  
☒ Compared with photo / drawing in: Cal Photos  
☐ By another person (name):  
☐ Other:

Photographs: (check one or more) Slide Print Digital  
Plant / animal ☐ ☐ ☒  
Habitat ☐ ☐ ☒  
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☒ no ☐

Mail to:  
California Natural Diversity Database  
Department of Fish and Game  
1807 13<sup>th</sup> Street, Suite 202  
Sacramento, CA 95814  
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

Date of Field Work (mmdd/yyyy): 05/30/2007

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Monardella candicans*

Common Name: Sierra monardella

Species Found? ☒ Yes ☐ No If not, why? \_\_\_\_\_  
Total No. Individuals +/- 2,000 Subsequent Visit? ☐ yes ☒ no  
Is this an existing NDDB occurrence? ☒ no ☐ unk.  
Yes, Occ. # \_\_\_\_\_  
Collection? If yes: yes Not yet deposited, likely DAV  
Number Museum / Herbarium

Reporter: Mark Bibbo  
Address: 2022 J Street  
Sacramento, CA  
E-mail Address: mark.bibbo@edaw.com  
Phone: (916) 414-5800

Plant Information

Phenology: \_\_\_\_\_% vegetative 100% flowering \_\_\_\_\_% fruiting

Animal Information

# adults # juveniles # larvae # egg masses # unknown  
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Hidden Falls Regional Park, On the Spears Ranch property, in the southeastern portion of the property, north of Coon Creek.

County: Placer County Landowner / Mgr.: Placer County  
Quad Name: Gold Hill Elevation: 496 ft.  
T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo. map & type): GPS  
T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model: Thales Mobile Mapper  
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy 1 m \_\_\_\_\_ meters/feet  
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒  
Coordinates: 38.9671°  
-121.182°

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Southwest facing slope in the opening of a Foothill Pine - Oak woodland on the north side of Coon Creek. The surrounding plant community is a moderately dense annual grassland on a gently sloping terrace above the creek. Growing with *Bromus* spp., *Lupinus* sp. (in fruit), *Hypochaeris glabra*, *Clarkia purpurea*, *Triteleia laxa*, *Navaretia intertexta*, *Brodiaea elegans*.

Other rare taxa seen at THIS site on THIS date:  
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: Grazing, recreation (hiking/equestrian trails)

Visible disturbances:

Threats: Grazing, non-native invasive weeds (yellow star thistle)

Comments: This occurrence consisted of several thousand individuals spread through the roughly five acre opening centered at the GPS point.

Determination: (check one or more, and fill in blanks)

☒ Keyed (cite reference): Jepson  
☐ Compared with specimen housed at: \_\_\_\_\_  
☒ Compared with photo / drawing in: CalPhoto  
☐ By another person (name): \_\_\_\_\_  
☐ Other: \_\_\_\_\_

Photographs: (check one or more)

Plant / animal ☐ Slide ☐ Print ☐ Digital  
Habitat ☐ ☐ ☐ ☐  
Diagnostic feature ☐ ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐



## **APPENDIX C**

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### Representative Photographs



Brandegee's Clarkia with characteristic shallowly lobed petals



Open woodland habitat along roadcuts where Brandegee's Clarkia was typically found in the study area

## Representative Photographs

## Appendix C

## **APPENDIX H**

---

Special-Status Wildlife Species with the Potential to Occur in the  
Hidden Falls Project Area and its Vicinity

Special-Status Wildlife Species With Potential to Occur in the Hidden Falls Regional Park Project Area and Vicinity				
Species	Status <sup>1</sup>		Habitat	Potential for Occurrence
	USFWS	DFG		
Invertebrates				
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T	---	Elderberry shrubs, typically in riparian habitats.	None; there are no elderberry shrubs present in the project area.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T	---	Vernal pools in valley and foothill grasslands.	None; there are no vernal pools present in the project area.
Vernal pool tadpole shrimp <i>Lepidurus Packardii</i>	E	---	Vernal pools in valley and foothill grasslands.	None; there are no vernal pools present in the project area.
Fish				
Central Valley fall/late fall–run chinook salmon ESU <i>Oncorhynchus tshawytscha</i>	---	Species of Special Concern	Essential Fish Habitat designated; requires cold, freshwater streams with suitable gravel for spawning; rears in seasonally inundated floodplains, rivers, and tributaries, and in the Delta	Occurs in the lower Sacramento River, the ESC/NCC, and Coon Creek. Unlikely to pass waterfalls and access the project reach.
Central Valley steelhead DPS <i>Oncorhynchus mykiss</i>	T	---	Critical Habitat designated; requires cold, freshwater streams with suitable gravel for spawning; rears in seasonally inundated floodplains, rivers, and tributaries, and in the Delta	Occurs in the lower Sacramento River, the ESC/NCC, and Coon Creek
Amphibians				
California red-legged frog <i>Rana aurora draytonii</i>	T	Species of Special Concern	Riparian and slow-water rivers and lakes with emergent aquatic vegetation.	Could occur; Several cattle stock ponds and freshwater marshes in the southwest section of the project area provide suitable habitat.
Foothill yellow-legged frog <i>Rana boylei</i>	---	Species of Special Concern	Perennial rocky streams in a wide range of deciduous and coniferous habitats; rarely found far from permanent water.	Could occur; Coon Creek and other shallow, perennial drainages with cobble provide suitable habitat.
Western spadefoot <i>Spea hammondi</i>	---	Species of Special Concern	Vernal pools in upland with burrows and other below- ground refuge.	Unlikely to occur; there are no vernal pools present in the project area.
Reptiles				
Northwestern pond turtle <i>Emys marmorata</i>	---	Species of Special Concern	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation.	Known to occur; surveys conducted in 2005 confirm presence along Coon Creek.
Birds				
Cooper’s hawk <i>Accipiter cooperii</i>	---	Species of Special Concern	Typically inhabits oak savannah, woodlands and open grassland habitats.	Likely to occur; suitable foraging and nesting habitat present in the project area in oak woodlands.

**Special-Status Wildlife Species With Potential to Occur  
in the Hidden Falls Regional Park Project Area and Vicinity**

Species	Status <sup>1</sup>		Habitat	Potential for Occurrence
	USFWS	DFG		
Sharp-shinned hawk <i>Accipiter striatus</i>	---	Species of Special Concern	Nests and forages in woodlands but may occur in the more open savannah woodland type habitats such as blue oak woodland and blue oak – foothill pine.	Could occur; suitable foraging and nesting habitat present in the project area in oak woodlands.
Tricolored blackbird <i>Agelaius tricolor</i>	---	Species of Special Concern	Forage in grasslands and agricultural fields; nest in freshwater marsh, riparian scrub, and other dense shrubs and herbs.	Unlikely to occur; marginal nesting and foraging habitat present in clusters of blackberry thickets in grassland openings, however this habitat is too separated from other regional locations with preferred habitat.
Golden eagle <i>Aquila chrysaetos</i>	---	Species of Special Concern; Fully Protected	Forages over open shrub and grasslands; nests on cliffs or large rock outcrops.	Known to breed just outside of the park; suitable foraging and nesting habitat present in the project area in annual grasslands and oak woodlands.
Yellow-breasted chat <i>Icteria virens</i>	---	Species of Special Concern	Forages and nests in riparian thickets of willow, blackberry, wild grape, and other brushy tangles near watercourses.	Known to occur; foraging and nesting habitat present in the project area in patches of blackberry thickets along Coon Creek and surrounding freshwater marshes and stock ponds.
Yellow warbler <i>Dendroica petechia</i>	---	Species of Special Concern	Nests in mesic, deciduous thickets, especially riparian; preferred habitat includes moist areas with dense insect prey populations.	Could occur; no suitable breeding habitat present in the project area; possible occurrence as a migrant.
White-tailed kite <i>Elanus leucurus</i>	---	Fully Protected	Forages in grasslands and agricultural fields; nests in isolated trees or small woodland patches.	Could occur; marginally suitable foraging habitat present in the project area in grasslands with scattered oak trees.
Bald eagle <i>Haliaeetus leucocephalus</i>	---	E	Forages in open water, roosts in adjacent trees; nests in tall, sturdy trees.	Unlikely to occur; no large, open water on the project area.
California black rail <i>Laterallus jamaicensis coturniculus</i>	---	T	Forages and nests in freshwater marshes with shallow water and little to no fluctuation that are composed of dense stands of bulrushes and/or cattails.	Known to occur; suitable foraging and nesting habitat present in marshes along Coon Creek.
Loggerhead shrike <i>Lanius ludovicianus</i>	---	Species of Special Concern	Forages in grasslands and nests in shrubs and small trees.	Could occur; suitable foraging habitat present in the project area in grasslands with scattered oak trees.

Special-Status Wildlife Species With Potential to Occur in the Hidden Falls Regional Park Project Area and Vicinity				
Species	Status <sup>1</sup>		Habitat	Potential for Occurrence
	USFWS	DFG		
<b>Mammals</b>				
Ringtail <i>Bassariscus astutus</i>	---	Fully Protected	Forages in chaparral, rocky hillsides and riparian areas. Denning habitat includes rock crevices, boulder piles, underground cavities, or hollow trees.	Known to occur; suitable foraging habitat and denning habitat present in large (> 6” dbh) trees along Coon Creek.
Townsend’s big-eared bat <i>Corynorhinus townsendii</i>	---	Species of Special Concern	Lives in a wide variety of habitats but most common in mesic sites; typically roosts in caves, mines, and similar structures	Could occur; suitable habitat present in the project area in rock crevices within foothill pine-oak woodlands.
<sup>1</sup> Legal Status Definitions <u>U.S. Fish and Wildlife Service (USFWS):</u> T Federal Threatened E Federal Endangered  <u>California Department of Fish and Game (DFG):</u> R Rare T Threatened E Endangered SSC Species of Special Concern				
Sources: CNDDB 2007; USFWS 2007; Hidden Falls Regional Park Initial Study 2006; CDFG 2004, 2005, 2006, 2007.				

Valley elderberry longhorn beetle and vernal pool invertebrates and amphibians are not expected to occur in the project area because the project area lacks their required habitat. No elderberry shrub, vernal pool or other seasonal wetland exists within the project area.

Sacramento splittail and hardhead were historically present in the Cook Creek drainage, however, are unable to access the project area because of downstream natural and man-made barriers in the channel.

Some special-status bird species that occur in the region are not expected to occur within the project area due to lack of suitable habitat or habitat connectivity. These include tricolored blackbird and bald eagle. Tricolored blackbirds are not likely to occur because the marginal blackberry bramble breeding habitat is far removed from locations of other populations. Bald eagle is not likely to occur because there are no large, open water sites in the project area.



**FOLSOM AUBURN TRAIL RIDERS ACTION COALITION**

[www.fatrac.org](http://www.fatrac.org)

October 15, 2012

Placer County Department of Facility Services  
Attn: John Ramirez, Parks Administrator  
11476 'C' Avenue  
Auburn, CA 95603

Subject: Hidden Falls Regional Park Ag and Public Use Improvements  
2012 Sierra Nevada Conservancy Proposition 84 Grant – LETTER OF SUPPORT

Dear Mr. Ramirez:

FATRAC, the IMBA club from the Sacramento/Sierra Foothills area, is happy to send this letter of support for the Hidden Falls Regional Park Agricultural and Public Use Improvement project. FATRAC members enjoy using the existing trails at Hidden Falls Regional Park and have donated hundreds of hours to volunteer in the county's trail stewardship activities. Our nonprofit organization recently received a \$15,000 grant from REI, which will be invested in infrastructure such as interpretive signage, benches and picnic tables, to be installed in the winter of 2012 by volunteers under parks staff supervision. We look forward to the expansion of the trails system and other improvements at the western end Hidden Falls Regional Park.

Staff has been proactive in educating trail users regarding the management of the park for the benefit of diverse habitats as well as for passive recreation. As volunteer trail stewards we fully support the importance of managing for long term grazing, improving roads for sustainability and protecting riparian resources including Coon Creek. FATRAC members are interested in the historical use of the ranch and respect the need for maintenance of grazing infrastructure. It is an interesting geography and provides us a sense of place. This continues our strong, effective partnership. We appreciate the Sierra Nevada Conservancy's support through the Proposition 84 Grant Program.

Sincerely,

*Cathy Haagen-Smit*  
Cathy Haagen-Smit, FATRAC Secretary  
Tandems2@sbcglobal.net





## Placer County Resource Conservation District

---

Date: October 17, 2012

Placer County Department of Facility Services  
Attn: John Ramirez, Parks Administrator  
11476 'C' Avenue  
Auburn, CA 95603

**SUBJECT: HIDDEN FALLS REGIONAL PARK AGRICULTURAL AND PUBLIC USE  
IMPROVEMENTS 2012 SIERRA NEVADA CONSERVANCY PROPOSITION 84 GRANT**

Dear Mr. Ramirez,

On behalf of Placer County Resource Conservation District (RCD), I wish to express my support for the Hidden Falls Regional Park Agricultural and Public Use Improvement Project and the Sierra Nevada Conservancy's support through the Proposition 84 Grant Program.

As a supporter of Hidden Falls Regional Park, we understand the importance of active management for the benefit of the diverse habitats and park users. The completion of the proposed agricultural infrastructure and access improvements are important components of an effective management plan. The RCD has provided technical assistance to Placer County on erosion control practices, forest management and pond management at Hidden Falls Regional Park over the past few years.

We expect to provide future support to Placer County with technical management issues relating to design and implementation of the proposed improvements. Completion of the improvements will ensure the viability of long term grazing management, the stability of the emergency/maintenance road system and protection of Coon Creek.

Sincerely,

Katie Maloney  
District Manager





Placer County Department of Facility Services  
Attn: John Ramirez, Parks Administrator  
11476 'C' Avenue  
Auburn, CA 95603

Date: October 12, 2012

SUBJECT: HIDDEN FALLS REGIONAL PARK AGRICULTURAL AND PUBLIC USE  
IMPROVEMENTS  
2012 SIERRA NEVADA CONSERVANCY PROPOSITION 84 GRANT – LETTER OF SUPPORT

Dear Mr. Ramirez:

REI is a national outdoor retail co-op dedicated to inspiring, educating and outfitting its members and the community for a lifetime of outdoor adventure and stewardship. Founded in 1938 by a group of Pacific Northwest mountaineers seeking quality equipment, REI is committed to promoting environmental stewardship and increasing access to outdoor recreation through volunteerism, gear donations and financial contributions. REI's long-time partner, Placer County Parks Division seeks "to provide for multipurpose trail construction and maintenance as well as property acquisition and maintenance in support of the Placer Legacy Open Space and Agricultural Conservation Program efforts for the purpose of providing public access and passive recreational opportunities for citizens and visitors to the County, while being sensitive to the environmental and scenic values of the land". REI supports this objective in an effort to increase accessibility to outdoor recreational opportunities as part of our stewardship focus.

REI is helping to support the trail development and enhancement of Hidden Falls Regional Park. The continued expansion of this local open space park offers surrounding communities an outstanding outdoor recreational resource in the area and aligns with REI stewardship priorities including increased access to outdoor activities and creating awareness of outdoor places as well as the need to protect these treasures for future enthusiasts.

In recent years the Placer County Parks Division, REI, and local non-profit Folsom Auburn Trail Riders Action Coalition (FATRAC) have partnered to co-host five consecutive National Trails Day service projects at Hidden Falls Regional Park. These stewardship projects have drawn over 300 volunteers and over 1000 volunteer hours from the surrounding communities. In July 2012, a REI stewardship grant to support trail expansion and general park enhancement at Hidden Falls Regional Park was awarded to FATRAC. In addition to this recent financial contribution, local REI stores will also assist with future volunteer opportunities at Hidden Falls Regional Park through promotion and support of upcoming events. Finally, REI Outdoor School utilizes the Hidden Falls venue to run outdoor educational programming including, Hiking, Map and Compass Navigation, GPS Navigation and Backcountry Skills.

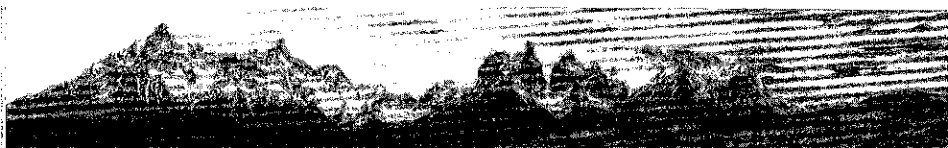
Local REI stores and its employees have a strong connection to Hidden Falls Regional Park and will continue to seek out new opportunities to support Placer County Parks Division as it creates new opportunities for the community to recreate in the outdoors.

Sincerely,

Erin Harrington

Outreach Specialist

REI Roseville



We inspire, educate and outfit for a lifetime  
of outdoor adventure and stewardship.

RECEIVED  
FACILITY SERVICE

2012 OCT 15 AM 8:12

Placer County Department of Facility Services  
Attn: John Ramirez, Parks Administrator  
11476 'C' Avenue  
Auburn, CA 95603

Date: October 11, 2012

SUBJECT: HIDDEN FALLS REGIONAL PARK AGRICULTURAL AND PUBLIC USE IMPROVEMENTS  
2012 SIERRA NEVADA CONSERVANCY PROPOSITION 84 GRANT – LETTER OF SUPPORT

Dear Mr. Ramirez

On behalf of the Lincoln Hills Hikers, we wish to express our support for the Hidden Falls Regional Park Agricultural and Public Use Improvement Project and the Sierra Nevada Conservancy's support through the Proposition 84 Grant Program. As users and supporters of Hidden Falls Regional Park, we understand the importance of active management for the benefit of the diverse habitats and park users. The completion of the proposed agricultural infrastructure and access improvements are important components of an effective management plan. Over \$10,000,000 and 5,000 volunteer hours has been invested in the acquisition and development of Hidden Falls Regional Park in order to permanently protect the 1,200 acre property and open the park for passive recreational enjoyment. My organization has contributed time and energy toward this worthy endeavor. The completion of the proposed improvements will ensure the viability of long term grazing management, the stability of the emergency/maintenance road system, and protection of Coon Creek.

Sincerely

*Steve and Jill Valerick*  
*Lincoln, CA*

**HIDDEN FALLS REGIONAL PARK**

**Vegetation, Fuels and Range Management Plan**

**Prepared for Placer County Facility Services**



Prepared by:  
Doug Ferrier, RPF #1672  
Rich Gresham, Placer County Resource Conservation District  
Roger Ingram, Farm Advisor, University of California Cooperative Extension

January 1, 2007

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**EXECUTIVE SUMMARY**  
**HIDDEN FALLS REGIONAL PARK**  
**VEGETATION, FUELS & RANGE MANAGEMENT PLAN**

The Hidden Falls Regional Park Conservation Plan identifies options for modifying vegetation to reduce effects of a wild land fire by modifying existing fuel load. Initial removal of excessive fuels will be accomplished through mechanical and hand labor methods and maintained through optimizing grazing opportunities. These tools will create and maintain natural resource protection in the setting of passive recreational uses. The Park will be accessible to hikers, bicyclists, equestrians and families. Passive recreation includes observing a variety of flora and fauna species common to the foothill area and in that regard this fuels management and grazing plan will protect critical wildlife habitat.

Due to its elevation and location in the foothills of the Sierra Nevada Mountains, the dominant vegetation type within the park is Oak Woodlands. Using the modified Wildlife Habitat Classification (WHR) contained in the Jones & Stokes 2004 "Placer County Natural Resource Report- Phase I Planning Area", mapping done off of 2002/2005 ortho photographs of the property yield the following acreage breakdowns:

Ecosystem Habitat	Acres
Valley Foothill Riparian Woodland	101
Oak-Foothill Pine Woodland	721
Interior Live Oak Woodland	206
Annual Grasslands	141
Ponderosa Pine	12
Total	1,181

The major issue facing the park is manipulating vegetation to lower the chances of a wildland fire from starting in the Park and escaping out into the surrounding area or an outside starting fire burning into the park. The park should implement a system of shaded fuelbreaks, to potentially slow down a moving fire, or to allow a safe point for trying to suppress a fire.

Shaded Fuelbreaks remove only a portion of the existing vegetation in certain strategic areas so that if a fire should approach one of these areas, its behavior is modified to the point that it can be safely suppressed with the resources at hand. Much less bare ground is created with a shaded fuelbreak.

The initial fuelbreak creation can be accomplished using the equipment listed below, which includes cost per acre:

Equipment	Cost / Acre
Small masticator with a bobcat	\$800 - \$1,000
Larger masticator	\$1,500 - \$1,700
Hand Equipment	\$2,000 - \$2,500

Shaded fuelbreaks which are not maintained will defeat the entire purpose of fuelbreaks. Vegetation will try to grow back into the openings created by thinning out existing material, as well as underneath it. To maintain these areas so that they retain their fuelbreak features, techniques such as livestock grazing, prescribed fire, cut/pile/burn material, manual pruning, and mechanical masticating, herbicide spraying can be used.

The costs for maintaining shaded fuelbreaks every one to three year is as follows:

Equipment	Cost / Acre for maintenance
Small masticator with a bobcat	\$500 - \$800
Hand Equipment	\$1,500 - \$2,000
Livestock Grazing	\$500- \$700

The following are recommendations for fuel load reduction and creating defensible space in the Park:

**Short Term (Less than 5 Years) Recommendations:**

1. Make defensible space around parking/improvement area at southeastern end of Park for 150' around the outside perimeter of the area.
2. County purchase industrial use knife chipper capable of chipping material up to 12" in diameter or participate in the existing county chipper program.
3. Make fire safe area adjacent to interior park management road/emergency access down to and across Deadman Canyon Creek\ for 20' either side of centerline of road, and have at least 15' above ground clearance above road.
4. Create shaded fuelbreak area F(1), using hand crews with a chipper. 200' wide where ground slopes are less than 30% and 300' wide where slopes are over 30%.
5. Create shaded fuelbreak E by using hand crews with a chipper. Make it 150' wide where ridgetop slopes are flat to gentle, and 200' wide where slopes are over 20%.
6. Flag all boundaries of work areas, put up temporary signs for Park users to understand what is going on and what shaded fuelbreak areas are and will provide.
7. Develop maintenance plan for maintaining defensible space areas around existing and immediately proposed improvements, roads and shaded fuelbreaks. Below are estimated costs for maintaining the shaded fuelbreaks every one to three years:
8. Finalize long term plans for Spears Ranch portion of Hidden Falls Regional Park, including where development areas might be and where park maintenance and emergency vehicle access might be maintained.
9. Consider identifying a permanent dry vehicle crossing of Coon Creek, capable of supporting 90,000 pounds of heavy equipment.
10. Apply for any and all potential grants and cost-share programs to help pay for project.

**Long Term (Over 5 Years) Recommendations:**

1. Based on infrastructure plans, select one of shaded fuelbreak areas A-D which will help lower potential fire danger for those sites and assist in fighting fire.
2. Create fire safe areas adjacent to main vehicle access road system, including park maintenance/emergency access roads.
3. Thin and clear defensible space areas around Park improvements such as buildings, parking, etc. as they are planned and built in the Park's west end.

4. Thin out vegetation and mow grass size vegetation in selected shaded fuelbreak area. Try to use mechanical equipment methods where appropriate to reduce potential costs.
5. Develop maintenance program for maintaining all defensible space, fire safe and shaded fuel break areas.

### **Grazing**

For the past 100 years, it appears that the park lands were strictly used for livestock grazing. The current tenant (former owner) has grazed the property since 1985. He runs a year-long cow-calf enterprise on the property. The stocking rate has fluctuated between 75-100 cows for the past twenty years.

### **The following are recommendations for grazing the Park, maintaining shaded fuelbreaks, and reducing the incidence of invasive noxious plants:**

1. The Park can either continue to be grazed on a year round basis or seasonally. Either choice could work if the right leasee could be identified. It would appear that seasonal use on annual range (February – May) would provide more flexibility in dealing with changes in carrying capacity and lessen impacts on riparian areas. With seasonal use, the irrigated pasture could continue to be grazed for the irrigation season (April – October).
2. Carrying capacity estimates indicate that 75 cows would be an appropriate number to run on a year round basis in a normal rainfall years. The base stocking rate for a normal rainfall year for seasonal grazing on annual range would be 150-200 animal units (cow-calf pair, stockers) and the irrigated pasture could carry 40-60 animal units (cow-calf pair, stockers).
3. Develop at least 2 more livestock watering points, one on the Didion side and the other on Spears to help improve livestock distribution.
4. The use of goats and/or sheep would be a great tool for the park to reduce fuel loads, maintain shaded fuel breaks, and control noxious plants. Either species would need temporary electric fencing, guard dogs for predator control, and livestock water. Water will need to be hauled in many instances, which increases the livestock owner's costs. The need for electric fencing and guard dogs presents a potential conflict with public access to the park.
5. Consider multi-species grazing to maintain shaded fuel breaks as the issues of electric fencing and guard dogs and public access are discussed. For the short-term, it may make the most sense to use mechanical chipping and/or mowing to maintain the fuel breaks.

### **Overall Recommendation**

To better understand the integration of grazing, fuel load reduction and public access, organize a field trip to learn about similar efforts in the Bay Area.



## **HIDDEN FALLS REGIONAL PARK VEGETATION, FUELS & RANGE MANAGEMENT PLAN**

### **Project Description**

The Hidden Falls Regional Park Conservation Plan identifies options for modifying vegetation to reduce effects of a wild land fire by modifying existing fuel load. Initial removal of excessive fuels will be accomplished through mechanical and hand labor methods and maintained through optimizing grazing opportunities. These tools will create and maintain natural resource protection in the setting of passive recreational uses. The Park will be accessible to hikers, bicyclists, equestrians and families. Passive recreation includes observing a variety of flora and fauna species common to the foothill area and in that regard this fuels management and grazing plan will protect critical wildlife habitat.

### **Conditions of Approval of Hidden Falls Regional Park**

In 2003, Placer County purchased the Spears Ranch portion of Hidden Falls Regional Park, as part of its Placer Legacy Open Space and Agricultural Conservation Program. The purchase was to meet the objectives of: 1) Passive recreation in the Garden Bar Area; 2) Blue Oak Woodland conservation; 3) Coon Creek corridor conservation and restoration; 4) Agricultural land conservation; 5) Conservation of habitat for sensitive species.

As part of the agreement to buy/purchase, the prior landowners were allowed to continue cattle grazing on the property, at up to the past 18 year's historical useage rates; could only cut up dead or dying trees with County's permission, up to 13 cords; and to act as "caretakers" of property, preventing damage to existing roads, preventing trespassing, and allowing no hunting on it. This agreement is to last no more than 10 years after acquisition.

In 2005, 220.1 acres of the Didion Ranch was purchased by the County, and combined with the earlier purchase to form the Hidden Falls Regional Park. Placer County agreed provide recreational opportunities as a passive park, with no courts or improved fields, and to be used for such activities as hiking, mountain biking, and horseback riding on established trails. In general, the park would be open between 6 A.M. and one-half hour after sunset. A 40,000 load limit vehicle bridge would be built over Deadman Canyon Creek, for emergency vehicle access only, a 12,000 gallon water storage tank would be built for fire protection purposes, and no outdoor firepits or outdoor barbequing would be allowed. Where access roads and trails combined, at least 15' of vertical clearance would be required, and a heliport would be built near the planned parking facilities. No motorized vehicles would be allowed, except at parking facilities, and for park maintenance and emergency vehicle access. No hunting is allowed. A shaded fuelbreak is to be built along the eastern boundary of the park, and a fuels management plan prepared.

## **Background**

Hidden Falls Regional Park is an 1181 acre Placer County park located approximately six miles northwest of the city of Auburn. The park is made up of portions of two livestock ranches, the Spears and the Didion Ranches.

In 2003, Placer County purchased the Spears Ranch portion of Hidden Falls Regional Park, as part of its Placer Legacy Open Space and Agricultural Conservation Program. In 2005, 220.1 acres of the Didion Ranch was purchased by the County, and combined with the earlier purchase to form the Hidden Falls Regional Park. The Hidden Falls Regional Park is covered by two Negative Declarations under CEQA (EA#3718 and EAIQ 3786), due to it being acquired in two separate transactions two points in time.

As part of the Conditions of Approval of purchasing the Didion portion of the park, the County agreed to the newly acquired property only being used for a passive park, with no courts or improved fields, and to be used only for hiking, mountain biking, fishing, wildlife viewing and horseback riding on established trails. New trails totaling approximately 7 miles would be built, and park would be open between 6 A.M. and one-half hour after sunset.

Work at the Didion Ranch, a 221-acre site located will continue this summer as crews construct a paved access road, a 50-space paved parking lot, an equestrian staging area, a 60-foot emergency access bridge, utilities and restroom facilities. The park is planned to be opened for public use in Fall 2006.

A 40,000 pound load limit vehicle bridge will be built over Deadman Canyon Creek, for emergency vehicle access only, 12,000 gallon water storage tank would be built for fire protection purposes, and limited use of outdoor firepits or outdoor barbequing would be allowed. Where access roads and trails combined, at least 15' of vertical clearance would be required, and a heliport would be built near the planned parking facilities. No motorized vehicles would be allowed, except at parking facilities, and for park maintenance and emergency vehicle access. No hunting is currently allowed.

Placer County is currently preparing a Placer County Conservation Plan (PCCP). If this planning process is finalized and adopted, the County will assemble an ecological reserve to help conserve the wide range of natural communities occurring within the PCCP planning area. The County believes that Hidden Falls Regional Park will help contribute towards that land conservation objective. In order for the County to receive PCCP "credit" for conservation lands, the land must maintain its ecological function and value. Placer County believes that Hidden Falls Regional Park currently meets that requirement and does not believe that the fuel-load reducing activities planned on the site will negatively affect the property's natural communities or the property's potential to meet PCCP conservation objectives.

**Park Description**

Hidden Falls Regional Park is composed of portions of Sections 16,21,22 & 23 of T13N Range 7E, MDM & BM, and is found on the Gold Hill 7.5' USGS topographic map quadrangle. Elevations within the park range from 380' above mean sea level along Coon Creek, to 1080' in the southeastern corner. Slopes range from 0-70%, with approximately 25% of the land being over 30% in slope. Over half of the property is on a northerly aspect, with the remainder having mainly southerly or westerly aspects. Very little true easterly aspect is found within the property.

Hidden Falls Regional Park is located in a rural area of Placer County, surrounded by numerous 10-160+ acre private ownerships. Current Placer County zoning of adjacent properties is for farms, with minimum parcel sizes ranging from 40-160 acres. The one exception to this is found in the north half of Section 26, which is zoned for farms with a minimum parcel size of 10 acres. About half of the adjacent parcels have some form of structural improvements on them, most of which are private residences.

Access to the general area is by way of Mt. Vernon Road, a Placer County paved system road. From the town of Lincoln to west, Wise Road runs into Mt. Vernon, while from the east and the greater Auburn Area, Atwood Road runs into Mt. Vernon. Secondary County roads off of Mt. Vernon, such as Mears Drive leads to the southeastern boundary of the park, while Garden Bar Road leads to the western boundary. When the boundary is reached, both access roads have locked gates currently restricting access.

The park is within the Coon Creek watershed, which is a tributary of the Feather River, flowing into it approximately 24 miles south of Marysville. Coon Creek flows east to west through the park, and is partially fed by Deadman Canyon Creek, which flows northwesterly into the park and into Coon Creek. Numerous small seasonal drainages flow into Coon Creek within the park. Whisky Diggins Ditch, a Nevada Irrigation District owned water ditch withdraws water from Deadman Canyon Creek within the park, and flows southwesterly through a portion of the park.

Within the park, current road access is by native surface dirt roads. Most watercourse crossings are by wet or dry fords, depending on the season. Connecting the interior property road systems on the west and eastern portions is a road located on the outside (or Coon Creek side) berm of Whisky Diggins ditch. This road was built to give access to all portions of the ditch by its owner, the Nevada Irrigation District.

**Precipitation and Temperatures**

Annual precipitation in the park area averages around 22"-27" a year and falls generally between November 1 and May 31. Overnight low temperatures during winter generally stay above freezing, while summertime highs can be above 100°F.

### **Watershed Area**

The park falls within the Lower Orr Creek CALWATER ver. 2.2 planning watershed (#5514.220204). Current potential problems and proposed mitigations, as identified in the Auburn Ravine/Coon Creek Ecosystem Restoration Plan (2006 Review Draft), include reducing the input and transportation of sediment and pollutants within channel, increase the quality and quantity of the Riparian habitat adjacent to the watercourses, and optimize resident and anadromous fish habitat.

### **Soils**

Soils are predominately silt loams, with Auburn, and Auburn-Sobranite complexes predominating. Soils are shallow to moderately deep, well drained soils, 20-40" deep, with moderate permeability and slight to moderate erosion hazard ratings. A small acreage of Boomer-Rock Outcrop complex soils exists in the southeastern corner of the park. This complex has moderately slow permeability, is 60" deep and has a high potential soil erosion hazard rating.

### **Ecosystem Habitats**

Due to its elevation and location in the foothills of the Sierra Nevada Mountains, the dominant vegetation type within the park is Oak Woodlands. Using the modified Wildlife Habitat Classification (WHR) contained in the Jones & Stokes 2004 "Placer County Natural Resource Report- Phase I Planning Area", mapping done off of 2002/2005 ortho photographs of the property yield the following acreage breakdowns:

Ecosystem Habitat	Acres
Valley Foothill Riparian Woodland	101
Oak-Foothill Pine Woodland	721
Interior Live Oak Woodland	206
Annual Grasslands	141
Ponderosa Pine	12
Total	1,181

**Valley Foothill Riparian Woodland** is located immediately adjacent to significant watercourses, such as Coon Creek and Deadman Canyon Creek. It is defined as being those stands of deciduous trees near perennial and intermittent streams. Within the park, it is generally a very narrow band of trees, and may include Valley Oaks, Blue Oaks, White Alder, Fremont Cottonwood and Willow spp. Non-native invasive species of plants include Himalayan blackberry. Area can be heavily impacted by flood waters, as shown by 2005/2006 floodwaters which caused stream channels to shift and debris and sediment to wash away from adjacent channel banks.

**Oak-Foothill Pine Woodland** is defined as being composed of Interior Live Oak and Blue Oak, with at least 10% ground cover of Foothill pine. Interior Live Oak is the dominant species. Blue Oaks are found in more open canopy areas. Foothill pines are scattered throughout the type, occurring on both north and south facing slopes.

**Interior Live Oak Woodland** are areas dominated by Interior Live Oak, but may have some Blue Oaks in open canopy areas. The understory is comprised of annual grasses with few shrubs.

**Annual Grasslands** are composed of annual grasses and forbs. Most of the grasslands are found on the south side of Coon Creek. Only a few isolated oaks (Either Interior Live or Blue Oaks) are found within the type.

**Ponderosa Pine** type are areas with at least a 50% ground canopy cover of Ponderosa pine. Associated species include Interior Live Oak and California Black Oak, as well as scattered California Buckeye.

In general, none of the vegetation types found on the park property have significant stands of brush species, although Manzanita is found on north facing slopes above about 700' elevation. There are some isolated stands of wedgeleaf ceanothus in Didion.

### **Wildlife**

Area wildlife is discussed in detail in the Jones & Stokes report "Placer County Natural Resource Report- Phase I Planning Area, 2004, Sacramento, CA. Identification of specific wildlife species present within the park is currently part of a California Department of Fish and Game ongoing survey. 2006 represents the second year of the study, with another couple of years possible, depending on funding. Species currently identified as needing special management considerations are Big-Scale Balsamroot (a plant), Elderberry shrubs, Foothill Yellow-legged Frogs, California Red-legged Frogs, Northwestern Pond Turtle, Small-Footed Myotis & Yuma Myotis Bats, nesting burrowing owls, and any nesting raptors, should any of these species be found on the property. In addition, a series of small natural falls on Coon Creek is a barrier to anadromous fish passage, and is being looked at to see if anything can be done to it to allow fish passage.

### **Current Vegetation**

#### **Trees**

**Interior Live Oak** (*Quercus wislizenii*) - Dominant tree species throughout most of the property. It is found on all aspects and slopes, except within the Annual Grasslands type. It is a slow growing native oak that reproduces easily after disturbances such as wildfire, from root crown sprouts. Most of the trees of this species within the park are growing in circular clumps, indicating that they regenerated from sprouts after a fire. This results in dense standings of trees with closed canopies. Several stumps adjacent to grasslands within the park had annual rings counted, showing ages of 75-85 years old. Due to the generally dense canopy cover of these stands, little Interior Live Oak reproduction is present, as it is classified as being shade intolerant.

**Blue Oak** (*Quercus douglasii*) - In areas where Interior Live Oak is more open grown, and growing as individual trees, one can find Blue Oak within the park. Blue Oak is also considered a shade intolerant tree species, although it can reproduce in partial shade, as long as it has open space immediately above it to grow into. Most Blue Oaks on the property are found adjacent to grasslands, or in open canopy mixtures of oaks and grasses. With protection and absent any major disturbances, it can be expected that Blue Oaks can live in this area up 250 years old and reach sizes of 20-30" in diameter, breast height.

**Valley Oak** (*Quercus lobata*) - Found adjacent to permanent or seasonal watercourses. It is usually found on rich, deep, alluvial soils. It is a long lived species and of great value to wildlife. It is the largest hardwood growing within the park, and can reach diameters at breast height of well over 30" and ages over 250 years. It needs full to partial sunlight for natural regeneration, and due to wildlife, livestock and invasive animal species (feral pigs), may have significant natural reproduction problems in the area. Little or no small Valley oaks were observed in the park area.

**Foothill Pine** (*Pinus sabiniana*) – Foothill Pine is also known by the names Digger or Grey Pine. It is a fast growing pine that can reach 24" in diameter at breast height in 70 years. Within the park, it is believed that this species will not live much longer than 100-150 years. Most of park property that has Foothill Pine has a hardpan under the soil that will cause a normal tap root system to grow a much shallower with a diffuse root system that is prone to windthrow. As can be seen on site, there are numerous blown over Foothill Pines in various stages of decay. They blew over due to the tree's shallow root system and uneven multiple trunk branching system. This can be expected to continue in the future. For healthy reproduction, Foothill Pines need open full sunlight. Young seedlings can become established under dense canopies, but will not grow into large mature trees unless canopies are opened up while trees are still seedlings. Most young Foothill Pines are underneath existing canopy and will not mature. Foothill Pines can be found on all aspects within the Park, and only give way to Ponderosa Pines at the higher elevations.

**Ponderosa Pine** (*Pinus ponderosa*) - Exists only as a very minor component of the Park. It requires full sunlight to naturally reproduce, and its establishment dates back to the last significant fire on the property, when most of the vegetation was burned. While Foothill Pines are very drought resistant and can get by with annual moisture levels of 18-20" of rain, Ponderosa Pine needs at least 25" or more. It is only in the eastern boundary of the Park that significant stands of Ponderosa Pine are found. On the ridgeline above Whisky Diggins Ditch, and on the northeastern aspects does Ponderosa Pine first really first start appearing. The only place where it is the dominant overstory canopy is immediately south of Deadman Canyon Creek, along the eastern boundary of the Park. Ponderosa Pine is generally a long-lived species reaching ages of 200-300 years old. However, at the lower elevational limits of its range, and when in dense tree canopies, it usually only grows to 100-150 years old.

**Fremont Cottonwood** (*Populus fremontii*), **California Buckeye** (*Aesculus californica*), **White Alder** (*Alnus rhombifolia*), and Willow spp. (*Salix sp.*) are only minor species within the property, and can be expected to remain that way naturally.

### **Grasses and Forbs**

The grasses and forbs described below are found throughout the park in each of the ecosystem habitats.

#### **Grasses**

**Annual Ryegrass** (*Lolium multiflorum*) – Cool season annual that produces numerous seeds that is both self and cross pollinated. Seed is short-lived in the soil (<3 years). Most seed falls close to the plant. Good forage species for livestock and wildlife.

**Blando Brome** (*Bromus mollis*) – Cool season annual that is often self-pollinated. Reproduces from seed. Most seeds germinate after first rains in the fall. Seeds can germinate on or below the soil surface. Thrive on fertile soils, but can establish on serpentine soils. Good forage for livestock.

**Cheatgrass** (*Bromus tectorum*) - Cool season annual that is self-pollinated and produces numerous seeds. Seed can live for three years in the soils. Has the ability to double its infestation level in ten years. Less desirable for livestock grazing.

**Mediterranean Barley** (*Hordeum marinum*) – Cool season annual that reproduces by seed. Seed survives for only a year. Usually occurs in disturbed sites. Can serve as livestock forage only during early growth. Stiff awns limit consumption from mid-spring to mid-summer.

**Rabbitfoot Grass** (*Polypogon monspeliensis*) – Cool season annual that reproduces by seed. Limited use as a livestock forage. Not very invasive. Usually occurs in small patches.

**Ripgut Brome** (*Bromus diandrus*) – Cool season annual that is both self and cross pollinated. Reproduces by seed. Seed survives for less than three years. Long awn during seed formation. Poor livestock feed.

**Wild Oats** (*Avena fatua*) – Cool season annual that is wind and self-pollinated. Seed can remain viable for four to seven years. Adequate as a livestock feed.

#### **Forbs**

**Lana Vetch** (*Vicia dasycarpa* Ten.) - ‘Lana’ woollypod vetch is a cool-season, annual legume originally developed for rangeland use in California. It has since proved to be excellent for erosion control and wildlife food. It is a self-seeding, semi-prostrate annual legume with trailing stems up to three feet long. Leaves are feather-like with pinkish purple flowers. It maintains its protein level into the summer and can serve as protein supplement for dry annual grasses.

**Lupin** (*Lupinus*)- Lupine grows on foothills and mountain ranges in sagebrush and aspen areas. Lupine is found on open and wooded hillsides. Perennial lupin species have shown to create problems for sheep and cattle with early season growth and in late summer due to a high alkaloid content.

**Rose Clover** (*Trifolium hirtum*) - Cool season annual legume that can grow 3-18 inches tall. The nitrogen content is 2%. Seed matures in May and June. Rose clover maintains its crude protein level above 8% deeper into the summer. It can serve as a supplemental protein source to livestock grazing dormant annual grasses.

**Subterranean clover** (*Trifolium subterraneum* L.) – Cool season annual legume that can grow 6-15 inches tall. The nitrogen content is 2.3 %. There are several varieties of subterranean clover and there is a mix of early, mid, and late maturing varieties. The clovers help improve the quality of the rangeland diet for livestock.

### **Brush**

**Manzanita** (*Arctostaphylos*) – Erect shrub or tree-like shrub from 2-20 feet tall. Can pose a fire threat as the wood burns very hot. Not an important forage resource for most livestock species. Goats will consume manzanita more in the spring than in the fall. Bitter tasting tannin levels tend to be higher in the fall. Goats will consume fresh re-growth. They also seem to prefer 3-4 year old plants. Can crowd out other vegetation and brush when abundant.

**Toyon** (*Heteromeles arbutifolia*) - Toyon is an evergreen shrub to small tree that usually grows to 6-8 ft. high and 4-5 ft. wide. The berries contain cyanide compounds which birds are able to eat. Goats can browse on Toyon in the spring before flowing in the summer and fruit set in the fall and winter.

**Wedgeleaf Ceanothus** (*Ceanothus cuneatus*) - Wedgeleaf ceanothus is a native, perennial, evergreen shrub reaching heights of 3.3 to 11.5 feet tall. It is cross-pollinated by insects. Wedgeleaf ceanothus establishment is generally synchronous after burning so wedgeleaf ceanothus stands are usually even-aged. Goats are able to utilize wedgeleaf ceanothus throughout the year.

### **Invasive Noxious Plants**

**Himalayan Blackberry** (*Rubus Discolor*) - Of the eleven species of *Rubus* in California, the most common, vigorous, and troublesome is Himalaya blackberry. The scrambling habit of Himalaya smothers existing plant growth. In addition, the tangled mass of thorny stems blocks access of humans, livestock, equipment, and vehicles to pastures and waterways.

**Italian Thistle** (*Carduus pycnocephalus*) - Italian thistle is an annual and sometimes biennial broadleaf weed. The height of the plant ranges from 1 to 6 feet tall. Flowers are clusters of purplish-pink slender heads at the ends of spiny-winged stems. The flowers



are borne in cylindrical heads and usually open in May and June. Goats will eat Italian thistle. It is very susceptible to the concentrated action of hooves of cattle. Feeding hay or a supplement in an area of Italian thistle will result in its absence the following year.

**Medusahead** (*Taeniatherum caput-medusae*) - Medusahead is a winter annual. The seedling stages of this grass weed occur in late or early spring. During seedhead development, the awn tips are visible before the seedhead emerges from the leaves that encase it. As maturation occurs, the seedhead becomes visible and the awns stick straight up from the seed. The flower is a long-awned spike. Mature awns are twisted, with a length of 1 to 4 inch. The awns are stiff and barbed slightly. The mature plant has a wiry and slender stem that contains narrow leaves. Poor livestock feed. The long awns tend to smother out any other growth – annual or perennial. High silica content slows decomposition and inhibits livestock consumption. Medusahead is one of the most invasive noxious weeds in California.

**Poison Oak** (*Toxicodendron diversilobum*) – Poison oak is a deciduous (loses leaves in winter), woody plant that can have a shrub or vine form. Initial establishment of poison oak is generally by seed that is transported by birds. Once established, the plant spreads by slow vegetative growth of underground horizontal rootstalks (actually stem tissue). A single root system can cover a very large area. Goats will consume poison oak from late winter until late summer. They like the young new shoots of the second growing season of the plant. They will not consume poison oak when leaves are oily.

**Yellow Starthistle** (*Centaurea solstitialis*) - An annual weed that grows 2-3 feet tall. It has rigid branching, winged stems that are covered with a cottony layer. Flower heads are yellow, located singly on the edges of the branches. The flowers have sharp straw-colored thorns that are  $\frac{3}{4}$  inch long. Seedling plants typically appear in winter and early spring, but can germinate any time most anytime of the year, except during cold weather. Goats will eat starthistle from the rosette to the seed stage. Sheep will graze from the rosette to bolting stage. Cattle will only eat it during the bolting stage. Yellow Starthistle can be toxic to horses.

### **Fire Danger Risks**

In its “natural” rural setting, the area encompassed by the Park boundaries is no more a fire risk than any other properties in the adjacent surrounding countryside. Livestock use adds no additional fire risks to a property, and the fact that animals graze down some of the existing vegetation actually reduces somewhat the over all available fuels to a wildfire. With no human habitation on site, there is little chance of man-caused fires from the property. It is partially for this reason that the overall fire danger for the property is currently rated Medium by the California Department of Forestry and Fire Protection (CDF). Overall fire danger ratings are based on a number of factors, including risks to hydroelectric power, soil erodability, water storage facilities, water transportation facilities, scenic view, timber resources, range resources, air basins involved, historic buildings & landmarks, housing, recreational opportunities, wildlife, infrastructure, fire-

flood watershed facilities, ecosystem sensitivities, as well as just the sheer amount of fuels.

According to CDF records, in the area roughly 6-10 miles around the Park property, there have been three significant fires over the past 55 years. One was caused by lightning, one by overhead power transmission lines, and one caused by a motor vehicle fire. Records do not show any fires burning within the Park property.

Research has shown that in the northern Sierra Nevada foothills, fires naturally burned every 25 years on average. Few trees within the Park show any evidence of past fires (fire scars on bottom of boles of trees). An analysis of 1938 aerial photographs of the area also shows that vegetation densities were very similar to what they are today, although the vegetation was shorter then. This suggests that it has probably been 75-100 years since the last significant fire burned through the property.

If one only looks at the available fuels on the property, the property would be ranked high to very high for fire danger. Interior Live Oak woodlands are inherently fire prone and regenerate well after fires. As this is by far the dominant vegetation type on the property, it can be expected that at some point in the future, this type will regenerate after a fire. Foothill Pines can also be a significant fire danger, as they have a high oil content and under certain weather conditions, can shoot hot ashes over great distances, causing a fire to move more quickly.

Now that the Park has become established and people will enter into the fire danger equation, an increase occurs in possible fire ignition sources, as well as an increase in the infrastructure at risk and human lives at risk.

### **Fire Fighting Strategies**

The major issue facing the park is manipulating vegetation to lower the chances of a wildland fire from starting in the Park and escaping out into the surrounding area or an outside starting fire burning into the park. The park should implement a system of shaded fuelbreaks, to potentially slow down a moving fire, or to allow a safe point for trying to suppress a fire.

Hidden Falls Regional Park falls within the fire protection area covered by the California Department of Forestry and Fire Protection, under contract with Placer County. The two main approaches to fighting fire they provide is by ground personnel/equipment and by aerial equipment. To be effective, ground suppression efforts must be able to get safely in and out of areas to be worked, encourage fire behavior that can safely attacked, and have fuel levels low enough that suppression efforts can get to it.

For aerial control, retardant/water drops must be able to get down into the fuels that will be potentially burning. Fires can burn on the ground by consuming fuels on or near the ground, or can burn across the top canopy of the woodland, driven by the top fuels of trees and the wind. A fire can also be burning on both the ground and in the upper tree

canopies. To be effective, aerial drops must be able to reach both the tops of trees and the ground. To have retardant only hit the tops of dense canopy trees does nothing to suppress the underlying ground fire, which under the right conditions, can race right back up into the tree canopies.

For Hidden Falls Regional Park, the most serious type of fire would come/go up the Coon Creek and/or the Deadman Canyon Creek canyons. Fire weather and fuels usually create much more damage and fire intensity up canyons rather than down canyons (usually during the day, winds prevail up canyons, and at night down canyons).

It must be understood from the onset that if a catastrophic fire were to occur (a fire burning in high winds and low humidity), there is no vegetation manipulations that could be done that would prevent or lessen the potential impact of such a fire on the Park. Under these types of conditions, hot embers can travel in winds a mile in advance of storms, set spot fires far ahead of anything immediately in front of a fire.

It is not these types of fires that this plan is attempting to address. Rather, it is fires that start under “normal” weather conditions where one has a chance to immediately suppress the fire because fuels were reduced in the immediate area of fire, or can stop/turn the fire, getting it to modify its behavior due to changes in the landscape vegetation.

#### **Fire Danger Reduction Options for Concentrated Public Access Areas**

With the introduction of people into the property, reducing the potential for human caused fires is extremely important. It has already been identified that a shaded fuelbreak will be created along the eastern Park boundary. A 12,000 gallon water storage tank will be built near the central parking lot at the eastern end of the park, and the emergency access road down to across Deadman Canyon Creek will be maintained and a bridge that can hold 40,000 pounds will be built across the creek (for fire truck access). There will be no motorized vehicle use within the Park except access to parking facilities at the southeastern end of the Park, and for park maintenance. No outdoor cooking, fires, or nighttime use is to be allowed during the fire season.

Several other practices need to be considered:

The area around concentrated human uses should have existing vegetation modified so that should a fire start in these areas, it is slow developing and allows suppression efforts to be quickly initiated. There should be 150’ wide defensible space area around the outside perimeter of the parking lot/restroom/staging area.

The 150’ defensible space area includes the following recommendations:

- Trees should be thinned so that no more than 40-60% of ground is covered by their canopy.
- Lower limbs (both live and dead) should be pruned off the boles to at least 10’ above ground line.
- If removal of lower limbs would result in less than 50% of the bole of the tree in live crown, then all vegetation within 10’ of the drip line of the tree should be

mowed down to less than 4" above ground, and live branches could be left within the 10' bole space.

- Any brush underneath trees should be removed, and only individual plants or clumps of brush species should be left out in openings, away from any trees.
- All grass/forbs should be mowed no later than when it has gone to seed, and all clipping removed from the zone. Resulting vegetation should be no higher than 4" above ground.
- Gates/openings should be strategically placed for fire fighting purposes & emergency access.
- If vegetation that is removed is chipped, the chips should be removed from the zone, unless they are used in landscaping to inhibit weed growth.

Outside of the parking/staging area, the remaining park use will be along the trail system built as part of the park infrastructure. Where trails are put on top of existing roads, fire clearances of 20' either side of centerline of roads should be maintained, for emergency access and fire clearance. That means removal of all understory brush and small trees and limbing up existing tree limbs to 10' above ground. Height clearance over road should be at least 15'.

It is not economic or practical to put any kind of defensible space immediately adjacent to trail areas. Trails should be wide enough to allow any walking, running, bicycling, or horseback riding individual to pass along it without brushing against adjacent vegetation. Trails should be free of anything other than grass, which should be mowed so that it is not over 4" in height. It is likely that over time, grass will disappear from trail surface, due to use. Trails should also be wide enough for trail maintenance vehicles.

A bobcat and a small chipper and/or masticator would be a prudent investment for the County to consider. A chipper could be used to chip up and blow back out away from the trail fallen organic debris and pruned clearance material. Over time, use of trails will lead County to find where various users stop along trails for rest/scenic/other purposes. Those areas, as they become identified, should be minimally cleared of debris by chipping, so that they do not become a fire issue.

### **OPTIONS FOR FUEL LOAD REDUCTION**

Dense Interior Live Oak stands are growing mostly in clumps, particularly on steeper slopes. Because most of it is, it would be very hard to thin out individual clumps. An alternative would be to remove entire clumps, taking out every other or every third clump, if one was to look at opening up overall stands of trees. Most of this labor would probably have to be done by hand, with removed vegetation being chipped and blown back onto the ground. This would reduce the amount of grass that grows in the understory of these stands. Low intensity roads would have to put in to access chippers close to where cutting occurs, as it impractical to carry cut material very far from where it is cut.

On slopes over 30%, issues of erosion potential and access roads become more difficult to address. By opening up stands, sprouting of cut stumps may also become a

maintenance issue. Interior Live Oaks are fairly resistant to most sprayings, so continually cutting sprouts or using prescribed fire to treat opened up areas must be considered. Costs for initial thinning in these types of stands may be \$2,000 to \$2,500 an acre (by hand/chip/spread) With 927 acres of this type, you would be looking at 1.8 million dollars to thin the entire park area, and then have ongoing maintenance costs on top of that.

Foothill Pines and the amount of windthrow is an issue in some places, because it removes healthy mature trees from the overstory, and increases the fire danger by increasing the amount of on the ground fuels that can be burned by a ground fire. However, this is a natural process caused by the types of soils and geology of the area, and the type of rooting system a Foothill Pine has. The only way to reduce the amount of windthrow Foothill pines is to cut down and remove all the mature and near mature pines in that type (753 acres). As this species is generally uneconomic as either sawlogs or firewood, the only hope of generating some offsetting revenue would be to chip it and sell it as hog fuel to con-generation power plants, if they would take it. To harvest the trees, one would need to put in a major system of skid trails and have large landings to stack harvested logs. Property roads would need to be significantly improved to allow large trucks on, and bridges across Coon Creek and Deadman Creek would need to be able to hold 90,000 pounds.

### **Fuelbreak Strategies**

**Bare Ground Fuelbreaks** - All burnable fuel/vegetation is removed within an area likely to have an established fire burn through it. To be effective, these types of fuelbreaks need to be at least 300' wide. Bare earth would be exposed on a significant part of a property, carrying additional risks of soil erosion and increasing sediment loads in creeks.

Carried to an extreme, a property can be made totally fire safe by making the entire property one large fuelbreak. Of course there would be no vegetation left to provide aesthetic, environmental, social and cultural attributes.

**Shaded Fuelbreak** - Only a portion of the existing vegetation is removed in certain strategic areas so that if a fire should approach one of these areas, its behavior is modified to the point that it can be safely suppressed with the resources at hand. Much less bare ground is created with a shaded fuelbreak.

Spacing out existing overstory vegetation so that only 40-60% at most of the ground is covered by overstory canopy allows the potential aerial fire attacks to reach both sources of fuel. By eliminating concentrated ground fuels and all ladder fuels within shaded fuel breaks, one slows the ability of fire to move through an area, as well as its ability to jump back up into a overstory canopy, where fire is a much more destructive force. Opening up the tree canopy also lowers the potential for fire to run from tree top to tree top.

When investigating potential shaded fuel break areas, one needs to consider:

- Range of potential weather conditions

- Fuels available to burn
- Physical ground features available to assist suppression efforts (ridgelines generally more effective than canyon bottoms, etc.)
- Natural openings or lower vegetation densities available to make potential shaded fuel breaks more aesthetically pleasing and economic to construct
- Available water sources
- Safe access for fire personnel and equipment
- Exit access for people

### **Potential Shaded Fuelbreak Locations**

Seven potential shaded fuel break corridors have been identified during this project (A thru F(2)). Five of the seven are on ridgetops or side ridgetops, while the other two are along a property line. The following is a brief discussion of each potential shaded fuelbreak:

**A:** Located at the western end of the Park, this shaded fuelbreak would provide protection from fires coming into the Park from the west, and protecting any improvements and buildings that may become part of the western area's improvement projects. About 2/3 of the length of this 4400' zone falls within open grassland and light density oak stands. To be effective, overall width would need to be between 200' and 300'. If it averages 250' in width, total area needing treatment would be approximately 25 acres.

Grasslands would need to be mowed to 4" or less no later than when the seedhead had formed. CDF would prefer that all grass areas within the zone be disked so that little or no grass vegetation is left exposed. This could be a problem from an aesthetic standpoint, as well as being possibly contrary to good range management.

Non-grass vegetation would need to be left as either isolated individuals or in small clumps, and growing out away from all other non-grass vegetation. Blackberry patches not deemed to be ecologically beneficial would need to be removed. Tree areas would need to be thinned so that no individual or small clump of trees has the edge of its crown closer than 20' to any other clump, and that overall ground cover of tree canopies is no more than 60%.

**B:** This 5000' shaded fuelbreak would also generally provide some protection from fires coming from off the properties to the west, as well as protecting any future improvements to the Park at the western end. Two-thirds of its length is either in a grassland area or a light density oak stand. About one-fifth of its length is on slopes over 30%, which would mean a width of 300' on the steeper slopes, while the remaining portion would have a width of between 100' and 200'. Overall area covered by the fuelbreak would be about 21 acres. The same requirements for the different vegetation types discussed in "A" above would apply to this proposed shaded fuelbreak as well.

**C:** The third potential shaded fuelbreak is approximately 5400' long, and generally runs north and south down and up side-ridges. A portion of it would run through the Spears Ranch residence, which may be a future site for park improvements. About one-half of it goes through lighter density oak woodland types. Average width would probably be around 275', with a total acreage of 34 acres.

**D:** The fourth potential shaded fuelbreak is much shorter than the previous three, due to it running northwesterly-southeasterly across a narrower section of the Park property. It would provide some protection from a fire moving from east to west through the park, in a down-drainage direction, but would not greatly protect any Park improvements made at the westerly end of the Park. Length is approximately 3000', and average width would be around 300', for a total of 21 acres. A steep sidehill grasslands would be a part of the fuelbreak.

**E:** This proposed shaded fuelbreak runs directly down the ridgetop between the drainages of Coon Creek and Deadman Canyon Creek. It would need to be 200' wide, and is approximately 3800' long, thereby encompassing an area of 17.4 acres. It is the only viable location for a fuelbreak for reducing the potential for a serious fire starting on the Park's eastern end and trying to run northerly out of the Park. Current vegetation is fairly dense, but ground slopes are overall fairly gentle.

**F(1) & F(2):** At the time of acquisition of the eastern end of the Park (portion of the Didion Ranch), the County agreed to establish a fuelbreak along the eastern boundary. F(1) runs from the southeast Park corner, northerly up to the start of fuelbreak E. This segment is approximately 3000' long, and would need to average about 270' wide, for a total acreage of about 19 acres. Most of the ground is steep and would have to be built with manual labor. F(2) is about 2000', and would need to be 300' wide, and entirely built on steep ground. Total acreage would be about 14 acres. F(1) would provide some protection from a fire originating within the park and running easterly to adjacent land. F(2) would provide little protection, due to its steepness and small amount of area adjacent to Coon Creek. A much more effective shaded fuelbreak would be doing both fuelbreak areas E & F(1) as one project.

Depending on how the Park is developed, what improvements are made, where they are sited and what access is kept open for Park maintenance and emergency access, funding and timing of developments, will all effect which of the 7 potential shaded fuelbreaks are built. Because the access, trails and emergency bridge across Deadman Canyon Creek are currently being built, it is recommended that the County consider its first priority constructing shaded fuelbreaks F(1) and E, which would allow firefighting personnel access to safely getting into and out of an area that could be used to fight a fire that might originate within the Park, around the developed parking area, and want to burn in a northerly direction. At the same time, the Park maintenance road down to Deadman Canyon Creek and up to fuelbreak E area would need to have adjacent areas fire clearances of 20' either side of road centerlines, and the developed parking area would need to have 150' cleared areas around them as well.

## Creation and Maintenance

The needed equipment for shaded fuel breaks depends on access, steepness of ground, amount of funding available, time of year projects are to occur in, and availability of people and equipment to do the work. Grasslands require mowing, so some kind of tractor with mowing attachments would be appropriate. Maintenance of areas can be handled by either additional mowing or by livestock use to keep areas grazed down.

Herbicide use is also an alternative for maintenance. Tree landscaped areas will need something to thin existing vegetation and to utilize the resulting cut vegetation. Small bobcat size equipment with mastication heads can be used where diameters of thinned material is not more than 6" and can operate on ground up to 25%, when ground is dry.

Larger mastication equipment, such as mounted on excavator type bodies can work on slopes up to 30%, and handle vegetation up to 12" in diameter. Both of these types of equipment masticate the material in place, reducing it down to small pieces and leaving it scattered out over the ground. Regular logging type of equipment, such as rubber-tired skidders and track laying tractors can be used to skid hand cut material from point of harvest to central landing areas for processing into chips. Physical labor can also be used to cut down vegetation needing thinning and hand feeding it into a chipper, for blowing chips back out onto the ground.

Each type or method of creating a shaded fuelbreak has its own limitations and potential effects on the land. Small bobcat size mechanical equipment can not handle the size of material that needs to be removed in some places, which will range up to 12" in diameter. Large excavator size masticators can handle bigger material, but need access into project areas. Equipment weights can range to 80,000 lbs, which can mean access over any new bridge over Deadman Canyon Creek would be prohibited.

If wanting to use such large types of equipment on area E, the County would need to develop access from adjacent properties to the east. For areas A-D, one would need to walk heavy equipment across wet ford crossings of Coon Creek. The smaller the equipment, in general the less of a footprint it leaves on the ground. Bobcat size equipment disturbs little of the ground, except as slopes get steeper. Larger masticating equipment can leave ruts where their tracks have turned or operated on soft ground. Actual logging equipment would need to skid (drag) vegetation after it is cut, on the ground to open areas for processing into chips. This would require the most amount of ground disturbance.

Use of hand labor to clear and feed cut material into chipping equipment probably provides the least impact to the ground, but is also the most expensive as shown in the following table:

Equipment	Cost / Acre
Small masticator with a bobcat	\$800 - \$1,000
Larger masticator	\$1,500 - \$1,700
Hand Equipment	\$2,000 - \$2,500



In addition, access would be needed to get chipping equipment close enough to all operating areas so that thinned out material does not have to be dragged any further than 50' (any further would significantly increase time/costs). Existing or to be built trails within the Park would need to be wide enough to have equipment operate along the trail, pulling a chipper behind it that is large enough to hand cut material up to 12" in diameter. If trails can not be made wide enough, the County would need to accept significant amounts of ground disturbance initially to build shaded fuelbreaks and then much lesser amounts of disturbance to maintain them.

**Shaded fuelbreaks which are not maintained will defeat the entire purpose of fuelbreaks.** Vegetation will try to grow back into the openings created by thinning out existing material, as well as underneath it. To maintain these areas so that they retain their fuelbreak features, techniques such as livestock grazing, prescribed fire, cut/pile/burn material, manual pruning, and mechanical masticating, herbicide spraying can be used.

The County will need to decide which one or combination of these methods fits their needs. As an example, prescribed fire may be the cheapest method of maintenance, but it leave "black ground" until the next growing season. For a park where aesthetic enjoyment is one of the highest purposes, blackened areas may not be acceptable.

Focused livestock grazing may be more acceptable, particularly as that is a similar use to what is occurring on some adjacent properties. Spot herbicide use may be appropriate to help control some invasive plant species in areas, but not appropriate as an all encompassing maintenance tool.

Once all the larger material has been removed during the initial creation of the shaded fuel break, smaller mechanical equipment might be totally appropriate for maintenance. Grasslands will need to be maintained annually, while woodlands may only need maintenance every 2-4 years, depending on site-specific conditions.

For regulatory purposes, as long as there is no commercial sale or bartering of services when removing native tree material from the Park, the California Forest Practice Act of 1973 does not apply. As for Placer County Tree Preservation Ordinance (Chapter 36, Placer County Code), tree removal for fire safety purposes in conformance with commonly accepted CDF policies is exempt from tree permits (36.330(B.))

### **Shaded Fuelbreak Maintenance**

Once any type of project is completed, it must be maintained so that it continues to provide its intended purpose. Vegetation within project areas change over time. Plant seeds hidden in soil germinate. Stumps and near surface roots of some species can resprout. Retained vegetation naturally grows into surrounding open spaces.

Those prime areas requiring annual maintenance will be the defensible spaces around improvements, such as the parking area. Each spring the adjacent grass will need to be mowed and any fallen dead debris picked up and removed. The same holds true along all trails and emergency access roads. Decaying and any significant regrowth of vegetation adjacent to trails/roads will need to be manually pruned, chipped or removed entirely from the area.

Cost of this annual maintenance is hard to quantify, due to the unknown amount of annual debris that may need to be addressed. It is hoped that the County Parks Department will have access to motorized equipment that can be operated on Park trails and can haul a chipper behind it to treat the material (probably the least expensive method). If not, then material would have to be hand removed by carrying outside of the affected area and treated (the most expensive method).

For designated shaded fuel break areas, intervals between initial construction and maintenance will depend entirely on how fast the retained vegetation and new seed germination occurs. It is possible that substantial maintenance need only to occur every 5-10 years, depending on what needs to be done. If annual grazing by goats/sheep occurs that keeps annual low ground level vegetation cut down, then maintaining open woodland canopy levels may be addressed at longer intervals. Use of prescribed fire, herbicides, etc. may also be used to lengthen this return period.

At these longer intervals, hand thinning and chipping of vegetation to keep canopy open could occur, or small size masticators could be used to keep smaller material from growing up into the open canopy.

Grasslands found on open rangeland or in very open woodlands where a shaded fuelbreak is present will need to be kept down either by grazing or by mowing on an annual basis.

Placer County should maintain cost data records over the first few years of managing the park to get costs per acre of different maintenance treatments, so that can budget appropriate funds for carrying out future work. For initial planning purposes, estimates are of \$500-\$700 per acre for goat/sheep use, and \$500 to \$700 per acre for use of small masticators. Hand crews would probably run \$1500-\$2000 per acre, depending on the density of material that needs to be cleared. Mechanical mowing is probably in the \$100-\$300 per acre range.

The key to accurately estimating maintenance needs will be to carry out annual inspections of the Park in early spring to assess how much naturally occurring debris and plant growth has been created that must be taken care of prior to the next fire season. It will not be the same from year to year. Annual inspections can also be used to provide an estimate out to approximately 5 years when the next substantial treatment of the shaded fuel break areas needs to occur.

**Short Term (5 Years) Recommendations:**

1. Make defensible space around parking/improvement area at southeastern end of Park by thinning out existing vegetation and mowing grass for 150' around the outside perimeter of the area. Use hand crews/chipper/mowing equipment.
2. County purchase industrial use knife chipper capable of chipping material up to 12" in diameter and narrow width enough to be pulled along Park trails and roads. Alternative would be to lease such equipment to see what products work and what products do not. Participate in the existing county chipper program.
3. Make fire safe area adjacent to interior park management road/emergency access down to and across Deadman Canyon Creek by removing and chipping understory vegetation for 20' either side of centerline of road, and have at least 15' above ground clearance above road.
4. Create shaded fuelbreak area F(1), using hand crews with a chipper. Blow back out on ground resulting chips, but not on trail surfaces. 200' wide where ground slopes are less than 30% and 300' wide where slopes are over 30%.
5. Create shaded fuelbreak E by using hand crews with a chipper. Blow back out on ground resulting chips, but not on trail surfaces. Make it 150' wide where ridgetop slopes are flat to gentle, and 200' wide where slopes are over 20%.
6. Flag all boundaries of work areas, put up temporary signs for Park users to understand what is going on and what shaded fuelbreak areas are and what is hoped to be accomplished with them. Mark a sample area so everyone understands what needs to be removed and what is being retained.
7. Develop maintenance plan for maintaining defensible space areas around existing and immediately proposed improvements, roads and shaded fuelbreaks. Below are estimated costs for maintaining the shaded fuelbreaks every one to three years:

Equipment	Cost / Acre for maintenance
Small masticator with a bobcat	\$500 - \$800
Hand Equipment	\$1,500 - \$2,000
Livestock Grazing	\$500- \$700

8. Finalize long term plans for Spears Ranch portion of Hidden Falls Regional Park, including where development areas might be and where park maintenance and emergency vehicle access might be maintained.
9. Consider identifying a permanent dry vehicle crossing of Coon Creek, capable of supporting 90,000 pounds of heavy equipment.
10. Apply for any and all potential grants and cost-share programs to help pay for project.

**Long Term (Over 5 Years) Recommendations:**

1. Based on infrastructure plans, select one of shaded fuelbreak areas A-D which will help lower potential fire danger for those sites, as well as assist in fighting any fire originating in those areas.

2. Create fire safe areas adjacent to main vehicle access road system, including park maintenance/emergency access roads.
3. Thin and clear defensible space areas around Park improvements such as buildings, parking, etc. as they are planned and built in the west end of the Park.
4. Thin out vegetation and mow grass size vegetation in selected shaded fuelbreak area. Try to use mechanical equipment methods where appropriate to reduce potential costs.
5. Develop maintenance program for maintaining all defensible space, fire safe and shaded fuel break areas. Try various maintenance techniques to see which is most cost effective and longest lasting of methods.

### **Potential Vegetation Rehabilitation Projects:**

For most areas of the Park, there is actually too much existing vegetation, rather than too little. However, there are some localized projects that could be undertaken to increase the overall health of the Park vegetation. These include:

1. Attempt to control wild pig populations within the park. Their feeding habits of heavily disturbing the ground can impact the ability of young seedlings to become established and thrive. Possible control methods can include:
  - a. Trapping and removal
  - b. Allow seasonal hunting
  - c. Fencing sensitive areas to allow natural reproduction to become established and large enough to survive on its own.
  - d. Birth Control
2. Remove invasive plant species such as black berries from woodland areas. Berry vines both inhibit native tree establishment and pose an increased fire hazard above native vegetation levels. However, some berry vine patches may be providing habitat for the California Black Rail, a sensitive wildlife species. Potential habitat needs to be evaluated prior to doing projects in these areas.
3. A long-term project to convert existing annual grasslands back to pre-European perennial grasslands. This could involve prescribed burning and reseedling of some areas.
4. Riparian areas within the Park have been heavily impacted by flooding, invasive species presence and past land uses. Adjacent areas within riparian areas could be replanted with native species.
5. In the long term, natural vegetation within the Park reproduced after significant wildland fires, which no longer occurs. Most present oak species need full to partial sunlight to reproduce, which they do not get under current dense canopies of vegetation. The County could consider a long-term prescribed fire program to burn over various areas of the park over time, to see if natural reproduction can be enhanced and perpetuated.

## **GRAZING BACKGROUND**

For the past 100 years, it appears that the park lands were strictly used for livestock grazing. The current tenant (former owner) has grazed the property since 1985. He runs a year-long cow-calf enterprise on the property. The stocking rate has fluctuated between 75-100 cows for the past twenty years.

Control of livestock grazing is minimal at best. The only reliable fence on the property seems to be the perimeter fence. Cross fences seem to be in need of repair and do not serve as any kind of deterrent. The distribution of livestock over all areas of the property could be improved. Many areas appear to receive little or no livestock impact from grazing.

The irrigated pasture serves as the primary forage resource for the cattle from April – October. At the lower end of the irrigated pasture is a stand of blackberries that could use some thinning. The irrigated pasture appears to receive little rest from grazing during the irrigation season.

The over-use of the irrigated pasture and the limited distribution of the cattle have served to minimize livestock impacts on riparian areas. Most seem to have multiple ages of plants and appear to be functioning well. Due to the lack of control of the grazing, there are not many perennial grass plants present outside of the irrigated pasture. Most bare ground areas on the property seem to be the result of the resident wild pig population.

Developed water points are non-existent. This leaves the only watering choice for livestock to be a creek or irrigation canal. A well was drilled on the Didion property for household use. It yielded 2.1 gallons per minute.

The peak water demand of a cow is in the summer and can run 15-20 gallons per head per day. With a 75 head cow herd, the peak demand would be 1,125 – 1,500 gallons per day. At 2.1 gallons per minute, the well would need to run for 12 hours to meet the peak livestock water demand and provide off-site water.

### **Estimate of Carrying Capacity**

I took 5 forage samples in May 2006 on open grassland areas in the Didion area to determine dry matter yield. The average is 3312 pounds per acre. According to acreage figures extrapolated by Doug Ferrier, there is approximately 292 acres with less than 40% of tree canopy that would have the capability of growing this amount of forage. The remaining 889 acres would have much less forage production due to increased tree canopy cover.

There was a study done at the Sierra Research and Extension Center that looked at carrying capacity on annual range that is similar to conditions at Hidden Falls Regional Park. They were finding that it took approximately 16 acres to provide enough feed for one cow for one year. Since Hidden Falls is more heavily treed, it would be a more

conservative estimate to say it would take 20 acres to provide enough feed for one cow for one year.

If we take those estimates, you could run 74 cows at 16 acres per cow or 60 cows at 20 acres per cow. These estimates do not take into account the irrigated pasture which is providing feed that is making up for production shortfalls on annual range. Mr. Spears stated to Rich Gresham that he runs between 75 and 100 cows. It would seem that 75 cows would be an appropriate number to run in most years.

### **Integration of Public Use and Livestock Grazing**

There are several examples of effective integration of public use and livestock grazing. Most have several common components. The first is the need to have a grazing management system to monitor forage supply and demand on a per pasture basis. This includes the planning to select the desired intensity of grazing, plus a schedule for any burning or haying. Monitoring for forage growth adjustments to reflect the current years conditions is also integral. Grazing seasons and stocking rates should be flexible and realistic. Secondly, the protection of riparian habitats is crucial. It is important for both permanent streams, as well as for seasonal seeps and spring areas. Thirdly, capacities must include the presence of any wild herds or migratory animals. Fourth, range practices such as reseeding, herding, fencing or building access roads should be coordinated between public and private interests. Lastly, there is a general feeling that too many public land administration agencies can complicate matters; each having their own set of conditions that may not necessarily correspond to another's.

The Valles Caldera Preserve in New Mexico is a good example of how public and private interests can cooperatively work together to protect and conserve the environment and a ranching way of life. This preserve and working ranch operates on four main principles. 1) To run a sustainable level of livestock, 2) To make resources available for other revenue-generating activities, 3) To apply adaptive management on a day-to-day basis, and 4) To monitor the impacts of its activities. Science plays a large role in ways such as the monitoring of trails and use impacts, the inventorying of flora and fauna and the creation of a new geologic map of the preserve. The preserve also relies on volunteers for things such as leading hikes and bird watching, educational talks to school groups and basic maintenance such as litter patrol. The public managers and private ranchers interested in grazing come together several times a year to assess the environmental health of the preserves flora and fauna and to map out future actions. For instance, 2006 grazing was suspended by a joint agreement after adverse conditions were reported on. This included a drought year, poor nutrient qualities of plant matter and the non-migration of native ungulates from traditional livestock grazing areas.

EastBayMUD is another good example. It has ~10,000 grazing acres plus recreational sites under its jurisdiction. Grazing generates revenues through grazing leases. Grazing occurs on lots next to urban interfaces which aids in the reduction of fire fuels and the control of invasive species. Grazing does not generally occur within developed recreation areas. However, portions of trails do go through pastures and these are closely

monitored by EBMUD staff. The protection of water quality is a high priority. Perennial streams are out fenced from livestock and seep and spring areas are only grazed once a year. EBMUD annually updates its grazing plans, field surveys are taken in the spring and fall and water quality sampling is done on a regular basis.

Though still in an early stage, the Stornetta Brothers Ranch in Mendocino County is a prime example of conservation and sound management practices for many years. Purchased by The Nature Conservancy & other donors, then donated back to the BLM for long-term stewardship, Stornetta Brothers has opened up a huge piece of land for public enjoyment while still operating as a working ranch. 579 acres are under an agriculture conservation easement, while grazing continues under grazing leases. Public access is being developed with input from various environmental groups.

Many governmental agencies have been trying to deal with this integration of public use and grazing, especially in Western states. There is a general acceptance of the conditions I have mentioned above. However, they have also concluded that “reasonable access” by the public does not mean “easy access” everywhere. Private landowners should allow for “reasonable” access to public lands through privately held lands. Grazing improvements” should be financed through grazing fee receipts. Private investments should be amortized over the life of the grazing permit. There should be no private property rights on public lands to include private ownership of water. Finally, short-term grazing privileges tend to discourage long-term range improvement plans and actions.

### **Hidden Falls Regional Park Grazing Management**

In order for the park to maintain a sustainable forage component, the following grazing principles will need to be implemented:

- **Rest period depends on the recovery rate of the plant** – This is the most important grazing principle. During fast growth (spring) on rangeland, a rest period of 25-30 days would be adequate. During slow growth (late spring to late winter) on rangeland, a rest period between 90-120 days would be needed to encourage perennial grasses to increase.

Fast growth (March-June) on irrigated pasture would need 25-30 days of rest. Hot summer heat slows growth of cool season irrigated forages and rest period would need to be lengthened to 35-45 days for July-October. By November, animals should be off the irrigated pasture to prevent pugging waterlogged soils. During extended winter dry periods, some use of irrigated pasture would be possible. A rest period of 90-120 days would be needed from November – late February.

- **Use the shortest graze period possible while maintaining adequate rest** – The main priority is to get the rest period right. After that, shortening the graze period will increase consumption and improve animal performance. The only way to shorten the graze period is to increase the number of grazing paddocks available per herd. Paddocks can be created through permanent fencing, temporary electric fencing, or herding.

- **Use the Highest Stock Density Possible** – Stock density is calculated by dividing the number of animals by the number of acres they are grazing in their paddock. It is independent of time. The higher the stock density, the greater the uniformity of utilization. A low stock density is visually indicated by over and under-grazed plants side by side. A high stock density on rangeland is more difficult due to the extensive terrain and topography. A goal of 2 animals per paddock acre would be a starting point. On irrigated pasture, a stock density of 20-40 animals per paddock acre would be a goal.
- **Use the largest herd size possible, consistent with good animal husbandry practices** – A larger herd size gives the flexibility to apply herd effect – the concentrated action of animal hooves. The hooves of the animals can act like plows to break up hard capped soils, turn in organic matter and distribute concentrated nutrients from manure, and break up heavy thatch areas associated with medusahead infestations.
- **Match the Stocking Rate to Annual and Seasonal Changes in Carrying Capacity** – Carrying capacity is the forage supply available for grazing. We have no control on that due to its dependence on rainfall and temperature. Stocking rate is the demand we determine to make on the carrying capacity. Low rainfall years mean a low amount of grass. High rainfall years mean a lot of grass.

During low rainfall years, the ability to reduce animal numbers will be needed. This can be accomplished by culling more heavily for reproductive and physical problems, retaining fewer or none replacement breeding females, and weaning early. During high rainfall years, we would need more animals to harvest the forage. During those years, the opposite would occur – cull lightly, retain more replacement breeding females, add in more animals for a short period of time to get paid by the amount of gain they can achieve due to the increased forage (stocker animals).

Another approach would be to have a core number of animals that the land could support in a dry year. In that scenario, you would only need to explore ways to increase animal numbers when forage was in excess. On the rangeland at Hidden Falls, that would be one dry 1000 pound cow on 15-20 acres. The dry cow would be the equivalent of 5 sheep or goats. On irrigated pasture, it would be that same 1000 pound cow on 1-1.5 acres.

Seasonal changes in carrying capacity would mean look at strategies that would match the highest demand of the animal (birth – peak lactation) with peak forage supply.



### **Integration of Goats for Fuel Load Reduction**

The following was written by Dr. An Peischel for the California Browsing Academy, a 3 day hands-on goat browsing school. It provides a good overview of the necessary components for using goats for vegetation control.

GOATS UNLIMITED started enhancing land productivity in 1985 on the Hawaiian Islands in old, abandoned sugar cane plantations with meat goats. Acres lay idle that had been in production for years but no longer capable of producing cane worth harvesting for profit on the world market. The acreage was eroded, the top soil long gone, and woody species and forbs in abundance - goat food! Our projects eventually expanded into citrus orchards, and macadamia nut farms, as well as overgrazed/underutilized rangelands. After a long search for a permanent home base, re-evaluation of production economics/parameters and quality of life goals - we moved our goats to a multi-ethnic populated community with diverse vegetative species and easily accessible infrastructure (roads and slaughter facilities) in the Sierra Nevada Foothills of north central California.

Our business has an established overall goal - to produce the highest quality Kiko meat goat for breeding and meat production while enhancing land productivity.

In California, we are pursuing land cleaning, fire breaking, fuel load reduction, weed abatement and rejuvenation of lands - from agricultural farmland/rangelands and orchards to timber producing forests. It is an all encompassing adventure with lots of challenges - goats, under CONTROL are being used to enhance land productivity and encourage vegetative biodiversity. To accomplish this, biodiversity must be maintained, the physiology of plants and soil understood along with the ability of man to make environmental, economical and socially sound decisions.

Before starting a land cleaning project with the goats, a goal for the land is established and the final landscape goal is described by the individual(s) owning the lands. We then do a complete vegetative survey analysis, soil profile data is obtained, and communication with the owner is an "open door" policy. The management goal encompasses the use of all ecosystems - biological and environmental - (ecology, plant physiology, hydrology, climatology, forestry, soils, economics, animal science, sociology and wildlife) with the success of the project centering around flexibility of management plans and the ability to replan.

But, ENERGY, in pastoral type agriculture is universal and can be used, stored, concentrated, or spread with the primary source being the sun. To use the natural energy flow efficiently - control - the time of grazing/browsing, the area to be grazed/browsed, the season of grazing/browsing, the plant specie to be grazed/browsed and the livestock specie used to graze/browse.

### **Vegetative Survey**

Obtain data of species growing in a specific area and understand their life cycle. It is important to know which species are toxic to the goats or which are noxious to production systems. If there are poisonous plants in the survey, identify the toxin and the

effect it will have at specific levels of intake and when to best use goats for control. It may not be the exact time to eradicate the plant so, other measures, such as concentration of goats for a short period of time may be called for. You need to know when the goats want to eat the individual species you are trying to eradicate or encourage. Remember, changes in plant communities takes time, it is an ecological process, 1-3 years is a normal time frame to begin to see change where as 7-10 years may be needed for complete eradication and change of regression plant communities into succession plant communities. Be sure you know what plant species you are trying to encourage - be sure you know what and how they fit into an environmentally adapted plan.

### **Electric Fence**

The reason we can plan, replan and go anywhere, is the availability of portable polywire electric fence and our ability to be creative with its construction. We use all solar powered electric energizers and raise the goats to respect the electric fences. We kid our does in electric polywire fences and the young kids get an early education to electric - not harmfully, just a reminder that mom on the inside of the fence is the safest place to be. In reference to animal behavior, goats always want to go forward with head down - get them used to jumping backwards toward mom and looking at the fence. They are quite smart and will make the decision to stay within parameters set for them. By this time they have learned to trust the guardian dogs (reducing the predation problem and stress level of the goats) and they are accustomed to being mustered by herding dogs (Border Collie, Huntaway and/or New Zealand heading dog).

### **Guardian dogs**

Our Akbash and Great Pyrenean Mountain guardian dogs whelp in the same paddock when our does are kidding - and the kids and pups grow up thinking they are "same". The dogs are not handled excessively when they are pups (except for vaccinations) so they bond completely with the goats. They are fed from automatic feeders and drink from stock waterers. The amazing guardians are nocturnal, as are most predators. The pups are neutered or spayed between 4 and 6 months of age and will then go through a kidding (the first of 3) with a mob of older does. The pups learn to respect the does and be kind to the kids. They learn to travel their boundary and they also, instinctively, learn that one of them needs to stay back and guard the goats. Their boundary is expanded by the third kidding and they are then moved into large expansive areas in the forest. The forest requires increased dog power as the terrain is rugged; the predators are mountain lions and bear along with the coyotes and domestic pack dogs. The dogs are amazing and flexibility without them would be almost impossible under our management. We trust our dogs completely.

### **Goat Breed**

The goat breed we use is the Kiko meat goat from the South Island of New Zealand. Genetic heritability of browsing and foraging is important. The Kiko was raised under varying climatic conditions and on rugged terrain. The main selection characteristic for the breed is survivability on rugged hill country and the growth rate of the kids under poor nutritional conditions. The Kiko, as a meat goat, is environmentally adapted to

work in our area alleviating health and production problems. The Kikos twin their first kidding (bred at one year of age), raise and wean the twins, and rebreed within the diverse vegetative areas that we use them. They use the brush for cover from inclement weather in the foothills and, amazing, they scramble, dig and get their kids out of the weather also. Motherability and milkability are factors enabling us to produce the wean crop that we kid in March and October. The kids are weaned at three months of age. Stress management is taken very seriously, and for 4 weeks (after weaning) they remain in the paddock their mothers were just removed from. The does are taken away to the next grazing project. The weanoffs are supplemented if needed with good alfalfa hay and whole beans/corn for 4 weeks. They are then moved into a high quality forage area grazed earlier and they are now on regrowth - never underestimate the nutritional value of regrowth - blackberries, poison oak, manzanita, buck brush, scotch broom, yellow star thistle, smartweed - high crude protein value and readily digestible. You might say we manage our brush/weedy species - not eradicate them. Mixed vegetation provides a year round selection for our goats, avoiding problems such as those associated with monocultures.

### **The Market**

From the brush, forest or rangelands/pasturelands, our meat goats go in several directions. Young bucks are selected as possible herd sires and grown out in the forest for one to 3 years, then final selection is made and they are sold. The wethers and cull bucks are in ponderosa pine, douglas fir and sugar pine plantations fuel load reducing. They are also used for firebreaking around young, newly planted plantations.

The young females are selected for return to the breeding herd or for seed stock sales to other meat goat raisers. The doelings go into yellow star thistle infested areas and organic olive orchards. They eradicate the yellow star thistle and sucker and prune the olive trees. At the age of one year, we make the final selection on their conformation and breeding status. The meat goats, those heading to several of the ethnic restaurants we supply, are grazed throughout the neighborhood (adjacent to our home base) land cleaning for the prevention of fire and so they can be pulled at the correct weight and age for slaughter. The selection depends upon the specific ethnic group needing the goats - religious holiday, family gatherings. We are now working on various variety meats - bratwurst, salami, ring bologna, kielbasa, pastrami, smoked legs, etc. for the ever expanding deli market concept returning to larger California cities.

### **The Business**

Land cleaning for neighbors is fire protection and mitigation for our home base. This service is the lead in to new projects such as: farm pond enhancement and flyways for ducks and geese, stream bank stabilization, cleaning along the local irrigation ditches, opening up and rejuvenating abandoned orchards, cleaning old fence lines, landscaping and firebreaking/fuels reduction around homes. The California Department of Forestry and insurance agencies want a 30 foot minimum setback (100 feet is preferred) around homes and outbuildings. It helps slow down the fire, cool the fire and enables firefighters to save homes more effectively without endangering their lives.

To be able to put all of the facets together is an interesting challenge - we do a lot of experimenting and record keeping. We need to know at what time of year the goats prefer specific plants. And, what class of goat in particular consumed that plant. It is important to know the species to be protected and those that need to be eradicated and/or controlled. Take from the vegetative analysis the list of species available in an area and know when to graze or when to bypass that area. Or, what plants can be grazed for the protection of other plants. Build a preference list denoting all plants on a 1 (least preferred) to 7 (most preferred) scale. Know the elevation, topography and hydrology of an area and the specific time of year to have goats in that vegetation. When working in a forest, the floor must be protected against erosion and at the same time, nutrient recycling encouraged. Fuel load reduction, control of ladder fuels and elimination of competition of unwanted species is done year round in the forest. The goats continue to travel while nibbling brush or a shrub so finding shelter from inclement weather is second nature for them. It is up to management, at higher elevations during the winter browsing period, to provide shelter for the goats.

Climatology has to be considered in year round grazing, as does slope. Remember, altitude - for every 400 foot rise in elevation, a phenologic event is delayed by 4 days. Vegetative distribution is also affected by exposure/insulation, precipitation, evaporation/transpiration and soil.

With the use of the goats, herbicide and pesticide usage can be virtually eliminated. There is no heavy metal input, no chemical costs and the goats are in high demand.

Scientific research and resource production management have to be used together to change a low successional environment to a high successional one.

## **INVASIVE NOXIOUS PLANT CONTROL**

### **Himalayan Blackberry Control**

Wild blackberries are able to regenerate from the crown or rhizomes following mowing, burning, or herbicide treatment. This makes them difficult to control, and control measures often require followup treatment. Land managers often rely on a combination of mechanical and chemical control methods followed by a prescribed burn to dispose of vegetative material. Goats can be effective in controlling blackberries by stripping all the leaves from the branches.

### ***Mechanical Control***

Wild blackberries can be easily controlled by *repeated* tillage. For this reason, they are not a problem in cultivated agricultural systems. A single cultivation, however, can fragment the rhizomes and spread the weed.

*Bulldozing* can also cause resprouting and can spread the weed by means of root and stem fragmentation. *Mowing* is not an effective means of controlling wild blackberries. In many cases it stimulates the formation of suckers from lateral roots and induces

branching. Despite the lack of long-term control, however, mowing or chopping can provide short-term canopy reduction that will encourage the growth of grasses and broadleaf plants.

*Burning*, like mowing, is not an effective long-term strategy because wild blackberry plants vigorously resprout from rhizomes. However, like mowing, it also provides short-term canopy reduction.

### ***Chemical Control***

Blackberry plants usually regrow following herbicide application; thus, repeated treatments may be necessary for effective long-term control.

**Herbicides Applied to the Plant.** Herbicides can be used in rangeland, pastures, noncrop areas, along roadsides, and in right-of-ways to control actively growing wild blackberry plants. To effectively control blackberries during the growing season, an herbicide must be transported within the plant to the rhizomes and new growing points.

#### ***Foliar-applied herbicides.***

Glyphosate formulated into a product with 41% active ingredient (a.i.) can provide good to excellent control of wild blackberries when applied in a 0.5 to 1.5% solution (i.e., about 0.6 to 2 oz of product per gallon of water).

Dicamba (Banvel, Vanquish) plus 2,4-D or dicamba alone applied in late summer gives good control of wild blackberries. However, 2,4-D alone provides only fair control and will result in resprouting.

Triclopyr is available to licensed applicators for commercial use in either amine (Garlon 3A) or ester (Garlon 4) formulations. Triclopyr ester (0.75 to 1% solution) is the most effective formulation of triclopyr on thimbleberry and the other three species of wild blackberries. Absorption of the herbicide into the foliage is not as good with the amine form. Nevertheless, it also provides good control when applied at a 1% solution.

*Basal bark treatment.* Concentrated forms of triclopyr (often mixed with commercially available seed oils for better penetration) can be applied to basal regions of wild blackberries by backpack sprayers.

*Dormant stem and leaf treatment.* As an alternative to basal bark treatments, a 1% solution of triclopyr ester can be applied to dormant leaves and stems (late fall and winter) in a 3% crop oil concentrate mixture (see labels for rate to use to obtain the desired concentration).

### **Poison Oak Control**

Grazing – Grazing by sheep and goats can be effective in small areas. Deer or horses will also graze on poison oak when the foliage is young, before the plant flowers.

Mechanical - Hand-pulling or mechanical grubbing (using a shovel, pick, etc.) can be used to physically remove plants located in a yard or near houses. Remove plants in early spring or late fall when the soil is moist and the rootstalks are easily dislodged. Grubbing when the soil is dry and hard will usually break off the stems, leaving the rootstalks to vigorously resprout. Detached and dried brush can still cause dermatitis, so bury or stack the plant material in an out-of-the-way location, or take it to a disposal site. Never burn poison oak.

Ideally, persons engaged in hand-pulling poison oak should have a high degree of immunity to the allergen. Whether the individual is sensitive or believed to be immune, he or she should wear appropriate protective clothing, including washable cotton gloves over plastic gloves, when handling the plants. Wash all clothing thoroughly, including shoes, after exposure.

Other forms of mechanical control have not proven to be successful. Brushrakes and bulldozers often leave pieces of rootstalks that can readily resprout. In some cases, brush removal late in summer, when plants are experiencing moisture stress, can slow their ability to recover. Mowing has little effect in poison oak control, unless it is performed repeatedly (at least four times during the growing season). Within 2 months of germination, young plants have usually produced underground rootstalks large enough to recover from mowing damage. A single plowing is of no value and often serves to propagate the shrub. However, good seedbed preparation and planting cultivated crops for a year or more will control poison oak infestations.

### ***Chemical Control***

Herbicides used to control poison oak in California include glyphosate (Roundup, etc.) and the auxinic herbicides triclopyr (Garlon, Ortho Brush-B-Gon, etc.), 2,4-D (Spurge & Oxalis Killer, etc.), and dicamba (Banvel, Spurge & Oxalis Killer, etc.). These herbicides can be applied as stump or basal applications, or as a foliar spray.

Glyphosate is one of the most effective herbicides for the control of poison oak. However, effective control depends upon proper timing of the application. Apply glyphosate late in the growth cycle, after fruit have formed but before leaves lose their green color. In hand-held equipment, glyphosate can be applied as a 2% solution in water. (Products or spray mixtures containing less than 2% glyphosate may not effectively control poison oak.) It is important to note that glyphosate is a nonselective compound and will damage or kill other vegetation it contacts.

Auxinic herbicides, such as triclopyr, 2,4-D, dicamba, and combinations of these herbicides, are also used to control poison oak. The application timing with auxinic herbicides is somewhat different than for glyphosate: applications can be made earlier than with glyphosate, when plants are growing rapidly from spring to midsummer.

Triclopyr is the most effective auxinic herbicide for control of poison oak. It has a wider treatment window than glyphosate and it often gives more consistent control. Two formulations of triclopyr are available. Triclopyr amine is the least effective of the

formulations and requires relatively high rates. Triclopyr ester or triclopyr ester plus 2,4-D ester gives better herbicide absorption into the foliage and is more effective.

When 2,4-D is combined with dicamba, it provides much better control than if it is used alone in a 1% solution. Premixed combinations of these herbicides are available. Dicamba applied at 0.5% gives better long-term control of poison oak than 2,4-D.

A new herbicide in California, imazapyr, is also very effective for the control of poison oak, but is only available for application by licensed pesticide applicators. In forestry, there are two formulations. The water soluble formulation (Arsenal) is effective as a foliar treatment at 1% plus a 0.25% surfactant. A similar treatment with an emulsifiable concentrate formulation (Chopper, Stalker) will control poison oak at a 2% solution in water or a 1% solution plus 5% of a methylated or ethylated seed oil. The best timing is in either spring after full leaf expansion or in late summer (mid-August through September).

**Stump Application.** Stump treatments are most effective during periods of active growth. Cut stems of poison oak 1 to 2 inches above the soil surface and immediately after cutting, treat the stump. A delay in treatment will result in poor control. Apply an herbicide such as glyphosate, triclopyr, or combinations of triclopyr with 2,4-D (or 2,4-D and 2,4-DP) with a 1- to 2-inch-wide paint brush or with a plastic squeeze bottle that has a spout cap. Treatment solutions should contain either undiluted glyphosate (use a product that contains at least 20% glyphosate), triclopyr amine, or a 20 to 30% triclopyr ester solution mixed with 70 to 80% oil (methylated or ethylated seed oils).

Be sure to completely cover all surfaces of the stumps with the herbicide until it runs down the base of the stubs. Spray any regrowth from cut stumps with a foliar spray when the leaves fully expand.

**Basal Application.** Basal bark applications can be made almost any time of the year, even after leaves have discolored or dropped. Apply triclopyr to basal regions of poison oak by backpack sprayers using a solid cone, flat fan, or a straight-stream spray nozzle. Thoroughly cover a 6- to 12-inch basal section of the stem, but not to the point of runoff.

**Foliar Sprays.** The effectiveness of herbicides applied to poison oak foliage depends on three factors: (1) proper growth stage at time of application; (2) spray-to-wet coverage; and (3) proper concentration. To achieve spray-to-wet coverage, all leaves and stems should be glistening following herbicide application. However, coverage should not be to the point of runoff.

Foliar application of herbicides to poison oak is most effective after leaves are fully developed and when the plant is actively growing. This period is normally from April into June or July, when soil moisture is still adequate. The flowering stage is the optimum time to spray. Do not apply herbicides before plants begin growth in spring or after the leaves have begun to turn yellow or red in late summer or fall.

One application of a herbicide usually does not completely control poison oak. Re-treat when new, sprouting leaves are fully expanded, generally when the plants are about 2 feet tall. Watch treated areas closely for at least a year and re-treat as necessary.

### **Italian Thistle Control**

#### **Physical Control:**

1. Burning – Prescribed burning will remove dense stands of mature thistle. However, burning may not completely control plants still in the rosette stage.
2. Grazing – Targeted grazing with goats and other farm livestock, but not cattle, is a useful technique. Livestock will dramatically reduce average seed production per plant and seed ingestion will not spread in the feces.
3. Hand pulling – Only effective if 4+ inches of root is removed.
4. Mowing – Seed production can be reduced by mowing. However, it is not a reliable method as plants can regenerate even if kept to 3 inches tall.

#### **Chemical Control:**

1. 2,4D applied in rosette stage (march –April), 8-12 oz active ingredient/acre
2. MCPA applied in rosette stage (Feb. – April), 2-6 oz active ingredient/acre
3. Picloram applied in the seedling or rosette stage (Feb – March), 1-8 oz active ingredient/acre

#### **Biological Control:**

1. Fungal; *Puccinia cardui-pycnocephali*, a rust, has shown some effectiveness as a method of control.
2. Insect; *Rhinocyllus conicus* (thistle head weevil) lays its eggs on bud bracts and the larvae infest the seed head. One generation is produced per year and they affect several species of thistle. *Trichosiocalus horridus* (musk thistle weevil) larvae feed on the growing tips of the rosettes. Adults may also defoliate the plant. One generation is produced each year and they effect several species if thistle. *Cheilosia corydon* (thistle crown fly) larvae damage leaves, stem and crowns. They can also infest the root system and kill the plant. One generation is produced per year, and they affect several species of thistle.

### **Medusahead Control**

Grazing – May prevent further establishment.

Mechanical – Tillage for seedbed will control existing plants, bury seed and break up deep thatch layers. Mowing is nonselective and not generally recommended.

Chemical – Currently very limited. Glyphosate and paraquat are nonselective and provide only variable control. Use only for small-scale infestation.

Fire – Use of fire has mixed results. Some plant communities have shown improvements, but others have not.

Integrated Management – Revegetation with perennial grasses is important following any method. A combination of mowing before seed dispersal then grazing has shown some



success. Also burning dried medusahead litter followed by early spring grazing has also been beneficial.

### **Yellow Starthistle Controls**

Control of yellow starthistle cannot be accomplished with a single treatment or in a single year. Effective management requires control of the current population and suppression of seed production, combined with establishment of competitive, desirable vegetation.

#### ***Prevention***

Yellow starthistle proliferates along roadsides. Invasion by this weed may be increased with disturbances created by road building and maintenance. Seeds are often spread by vehicles or with the transportation of livestock or contaminated soil. Survey roadsides for the presence of this weed and immediately control new infestations to prevent seed production and its subsequent spread.

Yellow starthistle also can be spread as a contaminant in grass seed. Only certified seed should be used for range or pasture seeding. Seed may also come as a contaminant in all classes of hay, particularly grass hay. Carefully check hay shipments for evidence of yellow starthistle. Hay used as mulch along roadsides or disturbed areas can be a source of yellow starthistle introduction. When feeding hay is suspected of containing yellow starthistle, place bales in one area and periodically check around feeding areas for signs of starthistle seedlings. Livestock that have fed in yellow starthistle-infested areas should not be pastured or shipped to uninfested areas. Control newly emerged seedlings to prevent establishment. It is important to control new infestations when they are small because spot eradication is least expensive and most effective at this time.

#### ***Biological Control***

Four natural enemies of yellow starthistle have been imported from Europe and are well established in California as of 2003. These biological control agents include two weevils ([\*Bangasternus orientalis\*](#) and [\*Eustenopus villosus\*](#)) and two flies (*Urophora sirunaseva* and *Chaetorellia succinea*). They all attack the [flower/seed head](#) and directly or indirectly reduce seed production, the only means of reproduction and spread of the weed. The insects lay their eggs in, on, or near flower/seed heads and complete their development within them. *Eustenopus villosus* adults also directly reduce seed production by feeding on immature flower heads. All of these insects are highly host-specific to yellow starthistle and do not attack commercially valuable crops or native plants.

These insects already occur in most areas of California that are infested with yellow starthistle. If additional releases of these natural enemies are made, protect the release area from practices that may damage the insects. Such practices include insecticide applications, soil cultivation, summer-prescribed burning, or mowing when the plants are in the flowering stage. After establishment, the insects are capable of building up to high numbers and spreading on their own. These insects do best in areas with warm, dry summer climates.

The most recent releases, *Eustenopus villosus* and *Chaetorellia succinea*, have proven to be the most effective agents for yellow starthistle seed suppression. These insects are becoming more widespread throughout the state. However, they only suppress yellow

starthistle seed production by about 50%, so they should not be considered as the sole method of control. It is possible that a combination of herbicides and biocontrol will provide more sustainable control than either technique used alone. Landowners and managers with yellow starthistle problems may contact their county agricultural commissioner's office about obtaining these biological control insects.

Most recently a rust, *Puccinea jaceae* var. *solstitialis*, was approved for release in California. Trials are under way to determine the potential effectiveness of this organism on yellow starthistle.

### ***Cultural Control***

Yellow starthistle begins emergence with fall rains and continues to germinate throughout the rainy season. A single cultivation after the rainy season when soils are dry effectively controls yellow starthistle [seedlings](#) and rosettes. This treatment must be made after the last rains but before seeds are produced. If cultivation is carried out too early (e.g., before the last rains) seed will continue to germinate and another cultivation will be needed to control each new flush of seedlings that results from a spring rain.

*Mowing* can be used to manage yellow starthistle, provided it is well timed and used on plants with a high branching pattern. Mowing early growth stages results in increased light penetration and rapid regrowth of the weed. If plants branch from near the base, regrowth will occur from recovering branches. Repeated mowing of plants too early in their life cycle (rosette or bolting stages) or when branches are below the mowing height will not prevent seed production, as flowers will develop below the mower cutting height. Plants with a high branching pattern are easier to control, as recovery will be greatly reduced. Even plants with this growth pattern must be mowed in the late spiny or early flowering stage to be successful. An additional mowing may be necessary in some cases.

To encourage growth of desirable vegetation, let these species set seed before mowing, but be sure to mow well before starthistle is in full flower. In general, mowing is most effective when soil moisture is low and no irrigation or rainfall follows mowing.

*Grazing* is effective in reducing yellow starthistle seed production. Sheep, goats, or cattle eat yellow starthistle before spines form on the plant. Goats will eat starthistle even in the spiny stage. The plant's crude protein concentration is variable, but ranges from 28% at the rosette stage down to 11% at the bud stage, and should be sufficient to meet the general maintenance requirements for most ruminants. When it is abundant, yellow starthistle appears to have the ability to sustain animals several weeks beyond annual grass "dry down." Intensive grazing in late May and June using large numbers of animals for short duration can reduce plant height, canopy size, and seed production. Avoid overgrazing, however; do not allow more than half the grass forage to be removed. Grazing more than this will reduce the grasses' recovery rate and ability to shade out yellow starthistle.

*Burning* is best performed at the end of the rainy season when flowers first appear. Yellow starthistle should be green at this time and will require desiccated vegetation to burn. Most annual vegetation other than yellow starthistle, particularly grasses, should

have dried and shed their seeds by this time. The foliage of these plants serves as a fuel source to allow a more complete burn. Burning for 2 or more consecutive years helps suppress yellow starthistle and deplete the soil seedbank. Burning can also increase the recovery and density of perennial grasses. Burning can damage biological control agents, but insects from adjacent areas will readily move back into the site the following year.

### ***Revegetation***

Control practices are capable of reducing yellow starthistle populations, but in the absence of competition, starthistle will often reestablish. Effective management requires that desirable plant species be encouraged or planted and managed to prevent yellow starthistle germination or growth. Species choice for revegetation will depend on the intended use of that site. Resident vegetation such as perennial bunchgrasses or wildflowers may be desirable along roadsides, abandoned pastures, or in rangelands and wildlands. In these situations, cultural, biological, or chemical methods can be used to reduce yellow starthistle while encouraging other plant species, if possible, with practices such as fertilization. Research efforts to reestablish native perennial grasses are in progress. Perennial grasses are slow to establish and may require herbicide treatments to assist yellow starthistle or annual grass control during establishment, but once well established, alternative controls such as properly timed grazing, mowing, or burning can be used effectively.

In pastures, eliminate dense stands of yellow starthistle and reseed the area with a fast-growing, competitive forage species. Although annual legumes work well for this purpose, the lack of selective herbicides makes follow-up treatments difficult. Therefore, grasses are best because selective herbicides can then be used to control yellow starthistle plants not eliminated by grass competition. In areas with scattered yellow starthistle infestations, eliminate scattered plants and overseed with a desirable species to provide enough competition to prevent yellow starthistle from reestablishing.

In all instances, choose desirable species that are well adapted to the site and not likely to become invasive themselves. Species that grow well are the best competitors.

### ***Chemical Control***

Both postemergent and preemergent herbicides are available to control yellow starthistle along roadsides, rights-of-way, and noncrop areas. Most herbicides registered for use in rangeland and pastures are only active postemergence. Clopyralid, however, has both preemergence and postemergence activity on yellow starthistle.

**Postemergent Herbicides.** Postemergent herbicide treatments generally work best on seedlings. The long germination period of yellow starthistle makes control with a single application almost impossible. A treatment following the first flush of seedlings opens a site up for later flushes. Waiting until later in the rainy season to apply a postemergent herbicide allows a greater number of seedlings to be treated, but larger plants will require higher herbicide rates and may not be controlled.

- *Clopyralid* is a growth regulator herbicide for use in noncrop areas, including rangeland and pastures. Unlike the other growth regulator herbicides, it is very effective on yellow starthistle both postemergence and preemergence. The most

effective timing for application is from January to March, when yellow starthistle is in the early to mid-rosette stage. Applications earlier may not provide full-season control and later applications will require higher rates. A single application at the recommended time will provide season-long control. Clopyralid is effective at rates as low as 1.5 oz acid equivalent/acre. It is selective on many members of the sunflower family, particularly thistles, but can also injure legumes, including clovers. Most other broadleaf species and all grasses are not injured by clopyralid. There are no grazing restrictions after clopyralid use in rangelands. Clopyralid is also effective on plants in the bolting and early spiny stage, but higher rates (4 oz a.e./acre) are required. While not registered for use around the home, clopyralid does have registration for use in pastures, rangelands, rights-of-way, roadsides, and other noncrop areas. Clippings of clopyralid-treated areas should not be used as compost. The herbicide degrades slowly in compost and can be a problem when used as a mulch or fertilizer source in sensitive crops or landscapes.

- *2,4-D* can provide acceptable control of yellow starthistle if it is applied at the proper rate and time. Treatment in the rosette growth stage provides better control than later applications. Amine formulations are as effective as ester formulations at the small rosette growth stage, and amine formulations reduce the chance of off-target movement.

Application rates of 0.5 to 0.75 lb active ingredient/acre will control small rosettes. Applications made later in the season, when rosettes are larger or after bolting has been initiated, require a higher application rate (1 to 2 lb a.i./acre) to achieve equivalent control. 2,4-D is a growth regulator and a selective herbicide that controls many other broadleaf plants, but has minimal effect on clovers and generally does not harm grasses. It has little, if any, soil activity. Drift from 2,4-D applications is common, particularly from ester formulations. Use caution when applying near sensitive vegetation or during windy or high temperature conditions. Certain formulations of 2,4-D require a restricted materials permit; generally formulations that are sold in small quantities (i.e., liquid formulations that do not exceed 1 quart and dry formulations that do not exceed 1 pound) do not require a permit.

- *Dicamba* is very effective at controlling yellow starthistle at rates as low as 0.25 lb a.i./acre. When yellow starthistle rosettes are small, about 1 to 1.5 inches across, the 0.25 lb a.i./acre rate works well, but higher rates (0.5 to 0.75 lb a.i./acre) are needed if plants are larger. Applications made in late rosette to early bolting stages have provided excellent control, although earlier treatments are better.

Dicamba is also a growth regulator and selective herbicide that controls many broadleaf plants, including clovers, but does not harm grasses. Its soil activity is very short. Like 2,4-D, it is available as both an amine and as an ester formulation. Drift from dicamba applications is common, especially from the ester formulation. Some formulations have lower drift potential than others. Use caution when applying near sensitive vegetation. Certain formulations of dicamba require a restricted materials permit; generally formulations that are sold in small quantities (i.e., liquid

formulations that do not exceed 1 quart and dry formulations that do not exceed 1 pound) do not require a permit.

- *Triclopyr* at 0.5 lb a.i./acre provides complete control of yellow starthistle seedlings but is not as effective on larger plants. More mature plants require rates up to 1.5 lb a.i./acre. Like 2,4-D and dicamba, triclopyr is a growth regulator herbicide with little or no residual activity. It is foliar-absorbed and active on broadleaf species, including clovers, but typically does not harm grasses. Triclopyr is formulated as both an amine and ester. The ester formulation is more sensitive to drift than the amine form. Caution should be observed when using the ester formulation. This material is registered for use around the home as well as for pastures, rangelands, rights-of-way, roadsides, and other noncrop areas.
- *Glyphosate* controls yellow starthistle at 1 lb a.i./acre. Good coverage, clean water, and actively growing yellow starthistle plants are all essential for adequate control. Unlike growth regulator herbicides, glyphosate is nonselective and controls most plants, including grasses. It has no soil activity. A 1% solution of glyphosate also provides effective control and is used at this concentration for spot treatment of small patches. An application of glyphosate is a very effective method of controlling starthistle plants in the bolting, spiny, and early flowering stages at 1 to 2 lb a.i./acre. However, glyphosate will severely damage desirable perennial grasses if they are sprayed as well. Glyphosate is registered for use around the home as well as for pastures, rangelands, rights-of-way, roadsides, and other noncrop areas.

**Preemergent Herbicides.** Preemergent herbicides must be applied before seeds germinate to be effective. The long germination period of yellow starthistle requires that a preemergent material have a lengthy residual activity. Make applications before a rainfall, which will move the material into the soil. Because these materials adhere to soil particles, off-site movement and possible injury of susceptible plants could occur if the soil is dry and wind occurs before rain. When yellow starthistle plants have already emerged, it is possible to combine a postemergent herbicide (to control emerged plants) with a preemergent herbicide (to provide residual control of any subsequent germination) for an effective control strategy.

Chlorsulfuron and sulfometuron are preemergent herbicides registered for roadside and other noncrop uses. Chlorsulfuron was recently registered for use in rangelands. Both are very effective at controlling yellow starthistle when applied at 1 to 2 oz a.i./acre. Little postemergence activity occurs on yellow starthistle with these two compounds. Best control is achieved when applications are made before weeds emerge. They may not be used around the home.

### ***Integrated Approaches***

Combinations of prescribed burning and clopyralid can be very effective for yellow starthistle control. However, when using this integrated approach it is important that a prescribed burn be conducted the first year (or possibly for 2 years) and that clopyralid be applied in the last year of the program. Treating in the first year and burning in the second year may increase the starthistle problem because burning has been shown to increase seed germination during the following rainy season. Continued control of yellow

starthistle after the last year of treatment can be accomplished by either mowing, spot spraying, or hand-pulling.

## CHOICES AND RECOMMENDATIONS

### Grazing Season Choices

Choices	Advantages	Disadvantages
Year Round	<ul style="list-style-type: none"> <li>• Lease would be more desirable for a rancher</li> <li>• Someone checking the park on a regular basis as they were irrigating or moving animals</li> <li>• Grazing occurring on more areas of the park</li> </ul>	<ul style="list-style-type: none"> <li>• Riparian areas potentially more impacted</li> <li>• Fluctuating animal numbers to changes in carrying capacity on an annual and seasonal basis for difficult to achieve</li> <li>• More overgrazing if grazing is continuous in park areas</li> </ul>
Seasonal	<ul style="list-style-type: none"> <li>• Riparian areas less impacted</li> <li>• Easier to fluctuate animal number to changes in carrying capacity on a seasonal basis</li> <li>• Someone checking the park on a regular basis as they were irrigating or moving animals</li> <li>• Less chance for overgrazing</li> <li>• Plants have opportunity for a extended recovery period during the non-grazing season</li> <li>• Period of time on the park where there is no animal use</li> </ul>	<ul style="list-style-type: none"> <li>• Length of the grazing season may make the lease less desirable for a rancher</li> <li>• Need more animal numbers for the shorter season</li> <li>• More areas of the park may not be grazed</li> <li>• No one checking the park on a regular basis for part of the year</li> </ul>

### Recommendation

Either choice could work if the right leasee could be identified. **It would appear that seasonal use would provide more flexibility in dealing with changes in carrying capacity and lessen impacts on riparian areas.** It would provide the park with times of the year with no animals.

The challenge for seasonal use is making the season long enough to be attractive for a rancher. The 11,448 acre Spenceville Wildlife Area changed their grazing lease from year long to seasonal and saw improved riparian area habitat. The grazing season begins approximately in February and runs through the end of April. The grazing season can be extended into May during years with abundant spring moisture. The goal is to have animals off the area as annual forage goes dormant and the only remaining green feed is in riparian areas.

The Spears section of Hidden Falls Regional Park does contain irrigated pasture. This provides the potential for extending the grazing season throughout the irrigation season. One approach would be to allow for a higher stocking rate during the spring flush of growth on annual vegetation and then reduce stocking rate to match the carrying capacity on the irrigated pasture from May through the end of the irrigation season in mid-October.

This approach would assume fencing of the irrigated pasture to contain animals during summer and fall. This would lessen riparian area impact during this period of time. If the leasee could show control of grazing and if more watering points could be developed, there would be the potential for extending the grazing season on annual range.

If seasonal grazing is chosen, it is recommended that the grazing season be February through May on annual range and April through October on the irrigated pasture. Year round grazing could be a viable option if the leasee has sufficient control of the grazing to allow periods of recovery for both annual and irrigated plants and minimize riparian area impacts during the dry season.

The base stocking rate for an average year for seasonal grazing on annual range would be 150-200 animal units (cow-calf pair, stockers). A residual dry matter of at least 800 pounds per acre will be left on annual grazing areas. Stocking rate should be evaluated on annually as these recommendations could be higher in good rainfall years and lower in poor rainfall years. The irrigated pasture could carry 40-60 animal units (cow-calf pair, stockers). It should be recognized that improved grazing management could result in being able to up animal numbers without having any detrimental impact on the forage resource.

## **Infrastructure**

### **Fencing**

The perimeter fence around the property appears to generally be in good condition. This fence should be checked at least annually for needed maintenance and repaired. The minimal amount of cross fencing is in despair and will not contain livestock. At a minimum, an interior fence around the irrigated pasture area should be installed. This will ensure animals could be contained on the irrigated pasture when needed. The fencing of the irrigated pasture could be with 3-5 wire barbed wire fence or some sort of permanent electric wire fencing.

At this time, it does not appear to be an effective use of money to fence off riparian areas. Riparian areas appear in good shape and are receiving minimal impact from livestock. The cost of fencing the riparian areas would be exorbitant and result in little bang for the buck.

The use of electric fencing in the park is another consideration. Electric fencing subdivision in the fenced off irrigated pasture area would be easy to implement. The use of electric fencing on the annual grass areas would be more problematic with public use.

Warning signs could be posted on the fence. However, there would be the potential for the public receiving a shock from the fence if they were unsure of the warning or did not see it. The shock would only last less than .3 of a millisecond but would be felt.

Electric fencing provides the opportunity to create more paddocks for grazing (resulting in more control) at an economical price. Permanent electric fencing can be installed for less than twenty cents a linear foot. Temporary electric fencing can be installed for less than thirty cents a linear foot.

It is recommended that electric fencing be temporary using either polywire or polytape. If a more permanent electric fence is considered, the use of polyrope could be an attractive alternative. Temporary fences would be build to create a paddock and then torn down after the grazing was completed. This would result in only one small area of the park being contained with temporary electric fencing. Fencing would be electrified using a solar powered energizer.

### **Livestock Water**

There are no livestock water points on the property except for the irrigated pasture and riparian areas. Providing more livestock water points on the property will help improve livestock distribution, make it easier to control the grazing, and further reduce the potential for riparian impacts by livestock.

The proposed 20,000 gallon water storage tank could be a possible source for livestock water. Peak daily demand in summer would run somewhere between 1,200 and 1,500 gallons per day. Water could be delivered out of the tank by running black polypipe above the ground. Water troughs could either be permanent or portable.

The existing well on the property is rated at 2.1 gallons per minute. The well would need to run for 12 hours to meet the peak livestock water demand and provide off-site water at this flow rate. A separate 5,000 gallon water tank could be used for livestock water purposes.

Solar water pumping could be another option for livestock water. In order to meet peak demand, a submersible pump powered by several solar panels would cost approximately \$10,000 installed.

**It is recommended that at least 2 more livestock watering points be developed on the property. The cheapest way to accomplish this would be to pump water into a storage tank and gravity feed from the tank. One water point would be on the Didion side of the park and the other on Spears.**



### Multi-species Grazing Using Goats and Sheep

Choices	Advantages	Disadvantages
Goats	<ul style="list-style-type: none"> <li>• Utilization of more diverse plant species including brush</li> <li>• Reduce the number of noxious plants such as yellow starthistle</li> <li>• Open brush canopy to allow more grass to grow and reduce fuel loads</li> <li>• Maintain shaded fuel breaks</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Temporary electric fencing will be needed to contain the goats</li> <li>• Losses from predators would need to be mitigated through the use of guard dogs.</li> <li>• Water would need to be hauled to the goats</li> <li>• Identifying an interested local provider</li> <li>• Providing a long enough grazing season to justify set-up costs</li> </ul>
Sheep	<ul style="list-style-type: none"> <li>• Utilization of more diverse plant species including brush, though not as much as goats</li> <li>• Reduce the number of noxious plants such as yellowstarthistle</li> <li>• Maintain shaded fuel breaks</li> </ul>	<ul style="list-style-type: none"> <li>• Temporary electric fencing will be needed to contain the sheep</li> <li>• Losses from predators would need to be mitigated through the use of guard dogs.</li> <li>• Water would need to be hauled to the goats</li> <li>• Identifying an interested local provider</li> <li>• Providing a long enough grazing season to justify set-up costs</li> </ul>

### Recommendation

**The use of goats and/or sheep would be a great tool for the park to reduce fuel loads, maintain shaded fuel breaks, and control noxious plants.** Either species would need temporary electric fencing, guard dogs for predator control, and livestock water. The greater diversity of plants that sheep or goats can graze would mean minimal impact on the cattle grazing resource. These species would provide a low-cost alternative for the county to maintain shaded fuel breaks and control noxious plants without the use of mechanical equipment or herbicide chemical control.

The difficulty is the interface of the public with electric fencing and guard dogs. The guard dogs would serve as an attractant for the public to see the dogs and to pet them. While guard dogs would not be dangerous to the public, their purpose is to guard the goats or sheep. They are not pets, which is how the public would relate to them. It would take somewhere between four to eight guard dogs to implement multi-species grazing.

There may be times of the year where public access is low and the use of a grazing system utilizing goats and/or sheep could be implemented with minimal public impact.

Livestock water is another difficulty. Water would need to be hauled to the goats and/or sheep. If two more water points were developed, there may be certain areas where you could tie into an existing water point. Since grazing would be occurring in more targeted areas, the likelihood of having an existing water point to work with would be low.

The set-up for grazing of sheep and goats can require an investment on the person providing the service. In order to attract a reputable provider, a long-term low or no-cost lease would need to be considered. A short grazing season would make it more difficult to find an interested reputable provider due to the high set-up costs.

**It is recommended that multi-species grazing be considered after fuel breaks have been created. For the short-term, it may make the most sense to use mechanical chipping and/or mowing to maintain the fuel breaks.** As more fuel breaks are developed, it may make more sense to consider multi-species grazing. Multi-species can be a valuable tool for the park. Despite the public interface issues, they should be considered. Over time, there may be windows of opportunity that would allow the multi-species grazing with minimal problems.

#### **Invasive Noxious Weeds**

Plant	Recommended Control
Himalayan Blackberry	<p><b>Grazing</b> - Multi-species grazing would be the most effective control as constant eating of the green leaves reduces the ability for plant regrowth.</p> <p><b>Chemical</b> – Fall will be the best time for application. Use of Glyphosphate or Triclopyr would work best.</p>
Italian Thistle	<p>Use the <b>concentrated action of animal hooves</b> to trample thistle clumps. When livestock are grazing in thistle areas, use an attractant such as a few flakes of hay thrown in the thistle patch to accomplish the trampling.</p> <p><b>Grazing</b> - Multi-species grazing would be another form of effective control.</p>
Medusahead	<p><b>Mow</b> as seedheads are just starting to form (normally May). Once the seedheads are formed, there is a two week window for mowing before the seeds become viable.</p> <p><b>Timing grazing</b> just before the seedhead forms can be another option. It can be difficult to get the number of animals at a high enough density to all the medusahead infested areas.</p> <p>Any untreated areas can use the concentrated action of animal hooves to break up any thick areas of thatch.</p>
Poison Oak	<b>Mechanical Control</b> - Remove plants in early spring or late fall when

	<p>the soil is moist and the rootstalks are easily dislodged.</p> <p><b>Chemical Control</b> – Apply glyphosate late in the growth cycle, after fruit have formed but before leaves lose their green color. This coincides with late spring or early summer.</p> <p>Triclopyr is the most effective auxinic herbicide for control of poison oak. It has a wider treatment window than glyphosate and it often gives more consistent control.</p> <p><b>Grazing</b> - Multi-species grazing would be another form of effective control.</p>
Yellow Starthistle	<p><b>Mechanical</b> – Mow after the plant has bolted and starts to set seed in mid- to late-spring. A late spring rain may mean a second mowing.</p> <p><b>Chemical</b> - <i>Clopyralid</i> is a growth regulator herbicide for use in noncrop areas, including rangeland and pastures. Unlike the other growth regulator herbicides, it is very effective on yellow starthistle both postemergence and preemergence. The most effective timing for application is from January to March, when yellow starthistle is in the early to mid-rosette stage.</p> <p><b>Grazing</b> – Cattle can be effective for starthistle control if grazing is timed to occur during the bolting stage. It can be difficult to get the number of animals at a high enough density to all the starthistle infested areas.</p> <p>Multi-species grazing would be another form of effective control. Goats will graze starthistle in all growth stages, including seedhead formation.</p>

### Overall Recommendation

To better understand the integration of grazing, fuel load reduction and public access, organize a field trip to learn about similar efforts in the Bay Area.

## COST SHARE PROGRAMS

**CFIP**

California Forest Improvement Program (CFIP) is a State funded cost-share program open to any landowner (private or public) who owns less than 5,000 acres of timberland within the State. Projects eligible for cost share funds include reforestation of burned areas, thinning overstocked stands of trees, creating shaded fuel breaks for protection of forested land, and other types of projects. It is administered by the California Department of Forestry and Fire Protection through its State office in Sacramento and by individual Ranger Unit foresters. Typically, the State pays up to 75% of an average statewide cost of a given practice. One requirement of the program is that the property for which a project is to occur must have a completed management plan. It is anticipated that a management plan for Hidden Falls Regional Park could be drafted from this Vegetation Management Plan with only a few changes. The State also cost shares for the cost of the plan. Annual funding cycles usually require that proposed projects be applied to CDF by July 1 of any year, although supplemental funds sometimes appear at other times of the year.

Currently, the program is in some confusion, as an Assistant Attorney General's legal opinion has cast doubt on the Department's direct disbursement of Proposition 40 funds currently being used to fund the program directly to landowners. The Opinion stated that payments could only be directly made to non-profit organizations or other governmental agencies. If this Opinion holds up, then an agency, such as counties and local RCD's could act as intermediaries in the program, and the program could continue on as it always has. It is unknown at this time when this issue will be resolved.

**Proposition 40 Community Assistance Grant Fuel Reduction Projects**

CDF also administers another cost sharing program funded through Proposition 40 funds, to protect watershed health by reducing the potential for wildland fires. It is open to either governmental agencies or nonprofit organizations. It is very similar to the Department's CFIP program, although it does not require a management plan to cover the property. Applications for projects usually must be submitted to the Department prior to February 1 of any year, and the project, if funded, must be completed within one year.

## APPENDIX

### Appendix 1. Grazing Management

The grazing principles described earlier are explained in more detail below. This information was developed by David Pratt when worked for the University of California Cooperative Extension. This paper forms the foundation of the core teaching for the California Grazing Academy, a three-day hands-on course on grazing taught at the Sierra Research and Extension Center, which contains similar habitat to Hidden Falls Regional Park.

### GREEN LEAVES CAPTURE SUNLIGHT

Sustainable production in ranching starts with using plants to capture sunlight energy. When sunlight falls on bare soil, rocks, or anything but growing plants, its energy cannot be harvested.

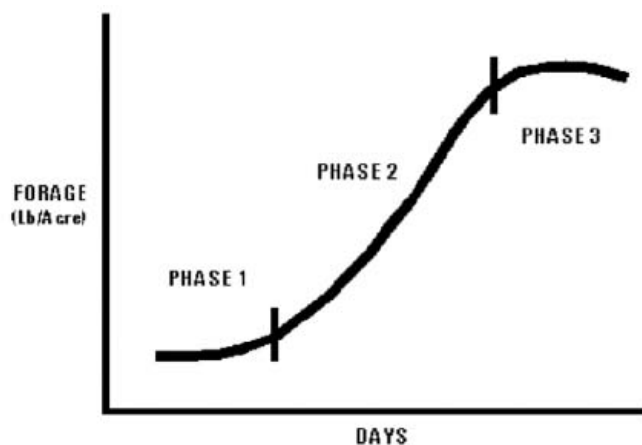
**Principle: Maintain 100% green plant cover in pastures for as long as possible.**

### THE "S" SHAPED CURVE

The efficiency with which plants convert the sun's energy into green leaves and the ability of animals to harvest and use energy from those leaves depends on the phase of growth of the plants.

After grazing, plants go through three phases of growth that form an "S" shaped curve (figure 1). **Phase I** occurs after plants have been severely grazed. After grazing, fewer leaves are left to intercept sunlight and plants require more energy for growth than they are able to produce through photosynthesis. So, to compensate, energy is mobilized from the roots. The roots become smaller and weaker as energy is used to grow new leaves.

**FIGURE 1. PLANT GROWTH AFTER GRAZING (THE 'S' SHAPED CURVE)**



Plant growth during phase I is very slow but the leaves are extremely palatable and nutritious.

**Remember phase I - high quality but low quantity.**

When regrowth reaches one fourth to one third of the plant's mature size, enough energy is captured through photosynthesis to support growth and begin replenishing the roots. This is **phase II**. It is the period of most rapid growth. During phase II, leaves contain sufficient protein and energy to meet the nutritional needs of most livestock.

**Remember phase II - high quality and high quantity.**

As plants continue to grow, leaves become more and more shaded. Lower leaves die and decompose. Leaves use more energy for respiration than they can produce through photosynthesis. This is **phase III**. Phase III material is stemmy and fibrous. Nutrient content, palatability, and digestibility of leaves in phase III material is poor.

**Remember phase III - low quality but high quantity.**

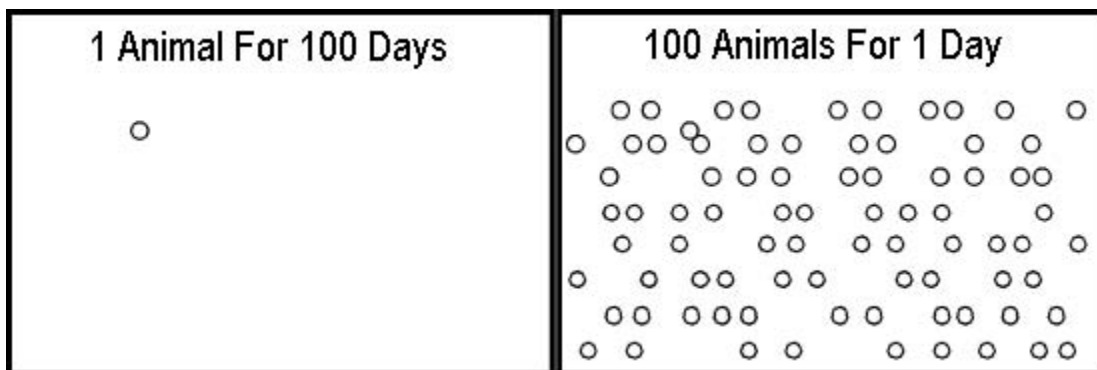
**Principle: Adjust grazing and rest periods to keep plants in Phase II, the most rapid period of growth.**

Do not graze plants so short that they enter phase I. Phase I regrowth is very slow and will reduce total productivity. Do not allow plants to enter phase III. In phase III, shading and senescence begin to detract from efficiency of photosynthesis. **The harvest of energy from your pastures will be maximized by keeping plants in phase II.**

## OVERGRAZING IS A FUNCTION OF TIME

Which would cause more overgrazing: one animal grazing a one acre paddock for 100 days, or 100 animals grazing that same paddock for one day? (figure 2) The stocking rate of both paddocks would be identical: 100 Animal Days per acre. But the effect on the paddocks would be much different.

**FIGURE 2. VARYING TIME & NUMBERS WITH CONSTANT STOCKING RATE**



In the first case, the animal would keep returning to areas previously grazed because the new growth would be more palatable and nutritious than the older growth of ungrazed plants. In the second case, the animals would probably graze everything in sight but would not have the chance to regraze plants. So, which would cause more overgrazing? To answer we must first know what overgrazing is.

**Overgrazing is grazing a plant before it has recovered from the previous grazing.**

**Overgrazing occurs in two ways: leaving stock in a pasture too long or bringing them back too soon.**

It is important to make a distinction between severe grazing and overgrazing. Most people use these terms interchangeably. I define them differently. Severe grazing means removing a lot of the plant, but it does not tell you how long a plant was exposed to grazing. Overgrazing means that a plant was regrazed before it recovered from a previous grazing. By this definition, a severely grazed plant has not necessarily been overgrazed ... but neither extremely severe grazing or overgrazing is good.

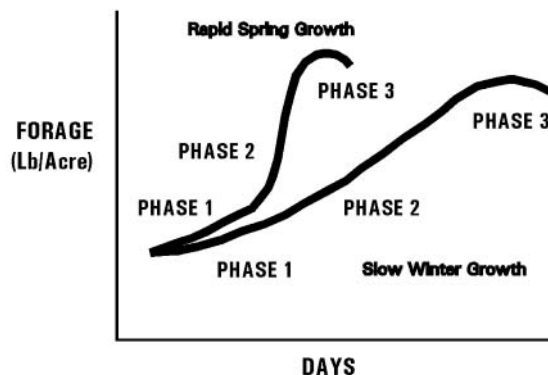
Now, let's relate this back to the two pastures. The first case (one animal for 100 days) resulted in regrazing of plants...overgrazing. There would also be many plants that were completely ungrazed. There would be plants in both phase I and III of the S shaped growth curve. Neither overgrazing or undergrazing is desirable.

The second case (100 animals for one day) may have resulted in severe grazing, but plants would not be grazed while they were recovering ... there would be no overgrazing.

## **PASTURE GROWTH RATES CHANGE**

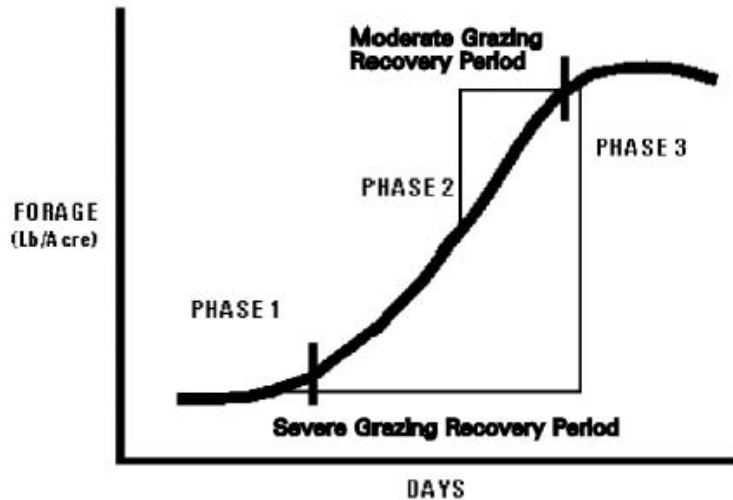
The rate of plant recovery depends on the growing conditions. Plants recover much more slowly during our cool winters than during our warm wet springs (figure 3).

**FIGURE 3. PLANT GROWTH AFTER GRAZING DURING RAPID GROWTH & SLOW GROWTH**



The growth rate also depends on the severity of grazing (figure 4). When plants are severely grazed their recovery is slow. When grazing is less severe, the recovery is relatively rapid. Increasing grazing severity by 25% may increase recovery time and decrease the productivity of the pasture by 100%!

**FIGURE 4. EFFECT OF LIGHT & SEVERE GRAZING ON PLANT RECOVERY**



Producers should avoid severe grazing and set rest periods to provide adequate time for plant recovery. During slow growth and dormant periods, rest periods should be long (60 to 120 days). During periods of rapid growth, rest periods should be shortened (30 to 45 days).

**Principle: Adjust rest periods to reflect rate of plant growth. Slow growth = longer rest. Fast growth = shorter rest.**

### **COWS ARE GOURMETS**

Time is also a critical factor from the animal's standpoint. The forage consumed and the quality of the diet changes during an animal's stay in the pasture.

Cows are gourmets. They graze selectively, eating the best plants and plant parts first, avoiding coarser, less palatable, less nutritious feed. Stock eat most on the first day of grazing (figure 5). As the days pass, the forage gets older and less digestible, and stock spoil more and more grass through trampling and dung and urine contamination, so they eat less.

In heavily stocked continuously grazed pastures, regrowth will be grazed as soon as it's available. The phase 1 regrowth is highly nutritious, but there is generally not enough of it to support high levels of animal production.

Lightly stocked continuously grazed pastures consist of plants in phase I and phase III. If animals are forced to eat phase III material, which passes through their gut very slowly,

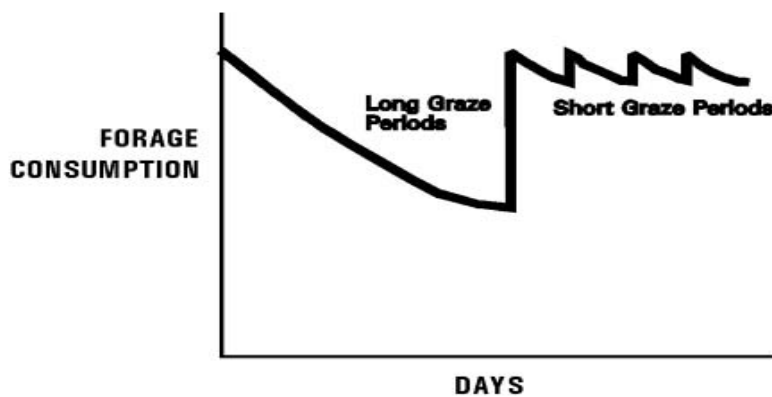


their daily intake will drop because they simply can't fit any more feed in their rumen. The result is poor animal performance.

In contrast, imagine a situation where animals are frequently moved to fresh feed. Forage consumption would remain high. The quality of the diet would also remain high.

## **Principle: Make graze periods as short as possible while maintaining adequate rest periods**

FIGURE 5. EFFECT OF GRAZE PERIOD LENGTH ON FORAGE CONSUMPTION



## **SUMMER ROTATION ON ANNUAL RANGES**

During the dry season annual plants will not be damaged by continuous grazing, after all, they are already dead. But, there are still benefits of controlling the length of the graze and rest periods. They include more total pasture production, more uniform utilization, less forage waste, improved and more uniform nutrition for livestock and better control of the amount of residue left to maintain healthy water and nutrient cycles.

Consider this: we've observed a dramatic increase in the number and vigor of desirable perennial grasses under this type of management. Do you think we'd be seeing the perennials if we grazed continuously through the summer? Perennials can only become established if the land is managed as though they are already present.

## **STOCK DENSITY**

Stock density is the number of animals in a particular area at any moment in time. It is usually expressed in terms of number of head per acre:

$$\text{STOCK DENSITY} = \text{HEAD} \div \text{ACRE}$$

**For example if 50 steers are grazing a 10 acre paddock the stock density is 5 head/acre:**

$$\text{STOCK DENSITY} = 50 \text{ HEAD} \div 10 \text{ ACRES} = 5 \text{ head / acre}$$

In his book *Holistic Resource Management*, Allan Savory says, "Low density, not overgrazing or overstocking, should bear the blame for many serious range and production problems, including trailing, successional shifts toward brush and weeds, pest outbreaks, poor animal performance, and high supplemental feed costs...". To understand why, let's take another look at the two one acre paddocks described earlier (Figure 2).

The two paddocks had identical stocking rates (100 animal days per acre), but they were grazed for different periods of time and the stock densities were drastically different.

In the first paddock, with one animal grazing for 100 days (stock density 1 animal/acre), utilization was uneven, with some plants overgrazed and others undergrazed. In the other paddock, where one hundred animals grazed for one day (stock density 100 animals/acre), utilization was more uniform and there was no overgrazing. Shortening the graze period reduced overgrazing, but it was the increase in stock density that resulted in more even utilization.

**Overgrazing is a function of time.**

**Uniformity of utilization is a function of stock density.**

Pastures with low stock density usually appear "patchy" with some patches grazed very short and other patches consisting of rank, "wolfy," phase III vegetation. Some ranchers mow pastures to keep vegetation uniform and palatable. Others use fire to remove old, stemmy, ungrazed material. What they usually really need is higher stock density.

High stock density increases the uniformity of utilization and maintains forage in a more palatable, nutritious, digestible condition.

Stock density increases as the number of animals in a paddock increase or as paddock size decreases.

**Principle: Use the highest stock density possible.**

Twenty head per acre is the minimum stock density needed to uniformly graze irrigated pasture. Higher is better. Stock densities of over 50 cattle per acre are not uncommon on well managed irrigated pastures. Two head per acre is a reasonable target on more remote ranges. Again, higher is better.

## **HERD EFFECT**

If you haven't already seen the movie *Dances With Wolves*, get out the popcorn and rent it tonight. When it gets to the scene where they are tracking the buffalo, stop the tape and reread this section. After the buffalo stampeded through, the range literally looked plowed. This is a natural phenomena called herd effect. When animals are spread out and calm, their hooves tend to compact the soil. When they are concentrated and excited, they tend to knock down old standing vegetation and break up the soil. Herd effect will not happen just by increasing stock density. To achieve this effect it is

usually necessary to stimulate animals in some way. It can be done by herding through or feeding on the area where you want this impact.

In addition, would it be easier to achieve herd effect with a group of 2 cows on 20 acres or 200 cows on 2000 acres? You cannot achieve herd effect with small groups.

**Principle: Use the largest herd consistent with good animal husbandry practices.**

Herds of up to 800 cows or 2500 stockers can be run without behavior problems. Added benefits of combining herds will be to increase the number of paddocks in the rotation and increase stock density.

**PADDOCKS**

Adequate time control and stock density can be achieved on many ranches with 16 paddocks. However, the "right" number of paddocks will vary and depends on the length of the required rest and desired graze periods and the stock density needed to achieve uniform utilization.

Most ranchers can begin implementing these basic principles without building new fences. By combining herds and closing some gates, there may already be enough fencing to control graze and rest periods and increase herd size and stock density. When fencing is required, consider minimal electric fence designs. Material costs for effective high tensile electric fences usually vary between \$500-\$1000 on rangelands.

**Stocking Rate and Carrying Capacity**

*The CARRYING CAPACITY is the number of animals that a paddock or cell can accommodate without overgrazing. Simply put, the carrying capacity is how much grass you have. STOCKING RATE is the feed demand. It is the amount of forage your stock are going to eat. Another way of thinking about this is:*

*Carrying capacity is what nature gives us.  
Stocking rate is what we take from her.*

The next principle of controlled grazing is:

***FLUCTUATE STOCKING RATE TO MATCH CARRYING CAPACITY***

If we knew how much grass our paddocks would produce, or if we started the year with a fixed amount of feed it would be a relatively simple process to ration it out over the course of the year. But we don't know what production will be until the season is over. Forage production, and therefore carrying capacity, varies greatly from month to month and year to year. It depends on the weather and our grazing management.

***Adjusting stocking rate as carrying capacity changes  
is fundamental to good grazing management.***

There are really two concerns here: 1) fluctuating the stocking rate to reflect seasonal changes in carrying capacity; and 2) adjusting stocking rate to match annual changes in carrying capacity.

***1. ADJUSTING THE STOCKING RATE SEASONALLY***

We may not be able to precisely predict how much grass will grow, but in most environments we can predict when it will grow. For example, we know that winter growth on California's foothill rangelands is slow. The green grass is high quality but there simply isn't much there. In spring growth is fast and there is a lot of high quality grass. In summer and early autumn there is very little growth. We generally expect feed quantity and quality to decline through this period. In controlled grazing, graziers must anticipate and plan for the spring "boom" and autumn "bust" of these foothill rangelands.

Just as carrying capacity changes with the seasons, nature is also constantly adjusting stocking rates. We all know that when cows calve, lactate, get bred and wean their calves their feed requirements change. For example, a cow in heavy lactation requires about 60% more energy than a dry cow. The stocking rate of a one acre paddock grazed for one day with 100 lactating cows is 60% higher than that same paddock grazed for one day by 100 dry cows. *By matching our animals' production cycle to our pasture's annual production cycle we can synchronize stocking rate with carrying capacity.*

***2. ANNUAL STOCKING RATE ADJUSTMENTS***

Stocking rate can be adjusted down in poor feed years by weaning calves or lambs early, or culling more heavily than usual. The earlier you make a decision to destock, the less severely you'll need to cull. (Every mouthful an animal doesn't eat today is a mouthful left for another animal tomorrow).

In good feed years stocking rate can be increased by culling lightly, retaining more replacements, carrying calves over as stockers or contracting to graze more stock.

The enterprise mix should reflect the drought risk. Ranches in environments where drought is common, should probably be stocked conservatively with cows. Surplus forage in good years can be used by stockers. Cow/calf producers in drought prone environments facing destocking decisions every few years should reevaluate their enterprise mix.

There are several methods for estimating stocking rate. But keep in mind that the numbers you calculate are only estimates. It is important to monitor actual production, utilization and livestock performance during the season. Graziers must always be looking ahead at the next paddocks to be grazed to make sure there is enough feed. If there isn't

enough feed you are either overstocked, your graze periods are too long, or you are not allowing enough recovery time regardless of what your estimates told you.

### ***DEFINITIONS***

**CARRYING CAPACITY:** The number of animals that a paddock or cell can accommodate without overgrazing.

**STOCKING RATE:** The feed demand of livestock grazed. The stocking rate can be measured in "stock days" grazed in a paddock.

## Appendix 2. Contracts and Grants Sources

S t*	Sources	Type*	Description	Eligible Projects	Not Eligible Projects	Ad jac en t Re q?	CW PP Re q?	Eligible Applicants
	Placer County	County	HR 2389 Title III	Search, rescue and emergency services on federal lands; staffing of community services work performed on federal lands; forest- related after-school educational opportunities; fire prevention and county wildfire planning; matching funds for urban/community forestry programs under the Cooperative Forestry; Assistance Act of 1978		N/ A	N/A	Federal, state, county and non-profit organizations
	PG&E	Enterp rise	TBD					
<b>C H</b>	BLM	Federa l	Community Assistance	Hazardous fuels treatments, community fire planning and education addressing wildfire safety in the wildland-urban interface (WUI). Funds are to be used on non-Federal lands. BLM desires collaborative projects within communities at risk, which are adjacent to BLM land, and recommends that applicants coordinate project design with their local BLM field office.		Ye s	Yes	Organizations working in California and representing their communities; for-profit entities must have a federal EIN and be registered as a business
	BLM	Federa l	Payment in Lieu of Taxes (PILT)	PILT payments may be used for any governmental purpose. Placer County received \$74,721 in 2004, and a total of \$964,024 from 1998-2003.	n/a			n/a
<b>C H</b>	CDF (through USFS SFA Program)	Federa l	WUI/State Fire Assistance	Funds are available to assist with fire hazard mitigation and hazardous fuel reduction activities in high-hazard, wildland-urban interface. Funds are to be used on non-Federal lands; projects can include: (1) hazardous fuel reduction activities and purchase of needed supplies and equipment for fuel hazard reduction (hand tools, chainsaws, personal protective equipment, chippers can be funded); (2) Education and information activities that target fire prevention and mitigation of losses.	Community fire planning, purchase of vehicles or heavy equipment such as tub grinders and other expensive items will not be funded.		Pre f.	Organizations working in California and representing their communities; for-profit entities must have a federal EIN and be registered as a business Applicants must coordinate design of projects with the local forest.

C H	National Park Service	Federal	WUI/Community Protection					
	USFS	Federal	Economic Action Program (EAP)--Pilot Projects	Expand & develop markets for wood products resulting from hazardous removal of fuels. Demonstration projects showcasing innovative utilization			Yes	state, federal, county, local, tribal governments and non-profits
	USFS	Federal	Economic Recovery Program (EAP)	Development of community action plans and to implement natural resource related projects contained within those plans; projects that assist communities in developing new forest and natural resource based industries; and upgrading existing industries to use forest resources more efficiently	Large equipment purchases and implementation projects	No	No	Nonprofits, state, local and Indian tribal governments and educational institutions
	USFS	Federal	Forest Legacy Program	Property acquisition; supports efforts to acquire donated conservation easements; landowner must prepare multi-resource management plan	Property acquisition; supports efforts to acquire donated conservation easements			Nonindustrial private forest landowners
	USFS	Federal	Forest Stewardship Program	Enable prep of multi-resource mgmt plans on state, private, and tribal lands. Ensure effective/efficient hazardous fuel treatment				State Foresters who then provide assistance to state, private and tribal land managers
	USFS	Federal	Forestland Enhancement Program (FLEP)	Forest stewardship plans, stand improvement, reforestation, invasive species control, wildfire and catastrophic risk reduction and rehabilitation forest health and protection fish and wildlife habitat, agroforestry, water quality and watersheds; <b>NOTE</b> --technical and educational assistance program; replaced the Stewardship Incentive program (SIP) and the Forestry Incentives Program (FIP);	Must have 10 year forestry management plan in place; must concur with State Priority Plan			Nonindustrial private forest landowners
N F	USFS	Federal	Forestry Incentives Program (FIP)	Replaced by Forestlands Enhancement Program (FLEP)				
N F	USFS	Federal	Stewartship Incentive Program (SIP)	Replaced by Forestlands Enhancement Program (FLEP)				
	USFS	Federal	Urban and Community Forestry Program	Restore and sustain the health and quality of the natural and human environments in urban areas through financial and technical assistance to plan, protect, establish, and manage trees, forests, and related resources	California			only available to states in the northeast and nort-midwest of the US

<b>C H</b>	USFS	Federal	WUI/State Fire Assistance (same as WUI/State Fire Assistance?-see CDF entry)	Funds are available to assist with fire hazard mitigation and hazardous fuel reduction activities in high-hazard, wildland-urban interface. Funds are to be used on non-Federal lands; projects can include: (1) hazardous fuel reduction activities and purchase of needed supplies and equipment for fuel hazard reduction (hand tools, chainsaws, personal protective equipment, chippers can be funded); (2) Education and information activities that target fire prevention and mitigation of losses.	Community fire planning, purchase of vehicles or heavy equipment such as tub grinders and other expensive items will not be funded.		Pre f.	CDF, local fire service, Fire Safe Councils, and private land cooperators (all thru CDF)
	USFS & National Forest Foundation (NFF)	Federal	Community Assistance Program (CAP)	Forest health and restoration; citizen based monitoring and fuels reduction in WUI; fuel reduction projects; fire recovery efforts; sediment reduction; planting native species, removal of invasive species, wildlife habitat, improvement of recreation resources		Yes	No	NGOs and non-profits
	USFS & National Forest Foundation (NFF)	Federal	Matching Awards Program (MAP)	For creation and capacity building of locally-based forest partnerships to engage in forest stewardship and rebuilding of sustainable economies and environment	No implementation projects funded	No	No	Newly forming community nonprofits
	USFS/Forest Products Lab	Federal	Woody Biomass Utilization	The woody biomass utilization grant program is intended to help improve utilization of, and create markets for, small-diameter material and low-valued trees removed from hazardous fuel reduction activities on Federal lands				communities, entrepreneurs, and others
	Allstate Foundation	Private	Safe and Vital Communities/ Catastrophe Response and Mitigation	Allstate is dedicated to fostering safe and vital communities where people live, work and raise families. These communities are economically strong, crime-free and residents feel a sense of belonging and commitment.		N/A	N/A	501(c)(3) organizations
	Giles W. and Elise G. Mead Foundation	Private		Projects focused on forestry, fisheries and sustainable use of natural resources				The Mead Foundation supports organizations dedicated to preserving and improving the environment, the advancement of medical science, and other important social needs. Environmental organizations supported by the Mead Foundation generally have as their primary emphasis forestry, fisheries and the sustainable use of natural resources in western North America.



	Home Depot Foundation	Private	Healthy Communities and Wildland Forests	Restore urban and rural forests in order to create healthier natural areas and a better environment for our communities	Awards most grants to invited proposals, but some set aside for competitive process	Non-profits
	National Council for Science and the Environment (NCSE)	Private	National Commission on Science for Sustainable Forestry	Research on synthesis and surveys; research and assessments; tool development and communication and outreach to advance the science and practice of biodiversity conservation and forest sustainability		Forest managers, practitioners and policymakers
	National Fish and Wildlife Foundation (NFWF)	Private	Noxious/invasive weed control and habitat protection	Various grant opportunities; check web site at <a href="http://www.nfwf.org/programs/grant_apply.htm">http://www.nfwf.org/programs/grant_apply.htm</a> periodically		
N F	Packard Foundation	Private	No fit			
N F	Sacramento Regional Foundation	Private	No fit	2004 focus is on services to seniors in Placer County, but defensible space assistance is not on the list and the grant amounts are too small	N/A	N/A
	Surdna Foundation	Private	Environment	Biological Diversity and the Human Communities Which Depend On It; Realigning Human and Natural Systems; Transportation and Urban/Suburban Land Use; and Energy	Individuals, capital campaigns or building construction, or projects that are internationally based or focused	Non-profits
	CALFED	State		Ecosystem Restoration Program		(1) local agencies; (2) private non-profit organizations, as statutorily defined; (3) tribes; (4) universities; (5) State agencies; and (6) Federal agencies
	CALFED	State	Science Program	Research on Water Operations and Biological Resources; Ecological Processes and Their Relationship to Water Management and Key Species; Performance Assessment to Improve Tools and Implications of Future Changes		Public entities (such as public institutions of higher education; State, federal, tribal, and local agencies; and California joint-power agencies) and certain nonprofit organizations
N F	CDF	State	California Forest Improvement Program (CFIP)	CFIP is a program aimed at improving the economic value and environmental quality of forestlands. CFIP can help rebuild forest and wildlife resources to meet future needs for a healthy environment and productive forests. Projects include management plans, Registered Professional Forester supervision, site preparation, tree planting, thinning, pruning, follow-up, release, land conservation, and improvement of fish and wildlife habitat.	Due to limited funds, only plans are being funded in 2004	Forest landowners

C H	CDF	State	Prop 40	???	???	???
	CDF	State	Vegetation Management Program (VMP)	Use of prescribed fire to control unwanted brush and other vegetation which creates wildfire hazards. Besides decreasing wildland fire potential, burning can improve wildlife habitat and watershed values.		Private landowners—individually or in groups—enter into a contract with CDF to develop a management plan with consideration of follow-up treatments to enhance the effects of the burn. CDF covers the liability, plans for, and conducts the burn. In the event the fire escapes, the State acts as leader and agrees to hold the landowner harmless.
	Resources Agency	State	Environmental Enhancement and Mitigation Program (EEMP)	(1) Highway Landscape and Urban Forestry-Projects designed improve air quality through the planting of trees and other suitable plants; (2) esource Lands-Projects for the acquisition, restoration, or enhancement of watersheds, wildlife habitat, wetlands, forests, or other natural areas; and (3) Roadside Recreational-Projects for the acquisition and/or development of roadside recreational opportunities.		Local, state, and federal governmental agencies; nonprofit organizations
N F	Sierra Nevada Conservancy	State	not yet funded	Increasing tourism and recreation; cultural, archaeological, and historical resource protection; reducing risks from natural disasters; water quality protection; and local economic assistance		Public agencies, nonprofit organizations, tribal organizations , and land trusts
	Wildlife Conservation Board / CA Dept of Fish & Game	State	Habitat Enhancement and Restoration Program	Enhancement and restoration of: (1) Threatened and Endangered Species Habitats; (2) Forest Land Habitat; (3) Salton Sea Restoration Projects. Projects must provide for the long-term maintenance of the restored and/or enhanced habitat		Nonprofit conservation organizations and federal, state or local governmental agencies

### Appendix 3. Contracts and Grants Websites

<b>USDA &amp; USFS Partnership Resource Center</b>			<a href="http://www.partnershipresourcecenter.org/resources/imp-tools/">http://www.partnershipresourcecenter.org/resources/imp-tools/</a>
<b>Catalog of Federal Domestic Assistance</b>			<a href="http://12.46.245.173/cfda/cfda.html">http://12.46.245.173/cfda/cfda.html</a>
<b>All government programs, with links</b>			<a href="http://www.ceres.ca.gov/foreststeward/html/financial.html">http://www.ceres.ca.gov/foreststeward/html/financial.html</a>
<b>Wildlife Conservation Board links to grants</b>			<a href="http://www.wcb.ca.gov/">http://www.wcb.ca.gov/</a>
<b>California Watershed Funding Database</b>			<a href="http://www.calwatershedfunds.org/">http://www.calwatershedfunds.org/</a>
<b>Sources</b>	<b>Type*</b>	<b>Description</b>	<b>Web Site</b>
Placer County	County	HR 2389 Title III	<a href="http://www.placer.ca.gov">http://www.placer.ca.gov</a>
PG&E	Enterprise	TBD	
BLM	Federal	Community Assistance	<a href="http://grants.firesafecouncil.org">http://grants.firesafecouncil.org</a>
BLM	Federal	Payment in Lieu of Taxes (PILT)	
CDF (through USFS SFA Program)	Federal	WUI/State Fire Assistance	<a href="http://www.epa.gov/owow/funding.html">http://www.epa.gov/owow/funding.html</a>
EPA	Federal	Assessment and Watershed Protection Program Grants (AWPPGs)	<a href="http://www.epa.gov/owow/wetlands/restore/5star/">http://www.epa.gov/owow/wetlands/restore/5star/</a>
EPA & partners	Federal	Five-Star Restoration Matching Grants Program	<a href="http://www.epa.gov/region9/funding/wetlands-04.html">http://www.epa.gov/region9/funding/wetlands-04.html</a>
EPA Region 9	Federal	Wetlands Program Development Grant (WPDG)	<a href="http://www.fema.gov/fima/pdm.shtml">http://www.fema.gov/fima/pdm.shtml</a>
FEMA	Federal	Pre-Disaster Hazard Mitigation Grants (PHMG)	<a href="http://www.fs.fed.us/spf/coop/programs/loa/equip.shtml">http://www.fs.fed.us/spf/coop/programs/loa/equip.shtml</a>
National Park Service	Federal	WUI/Community Protection	<a href="http://www.nrcs.usda.gov/programs/whip/">http://www.nrcs.usda.gov/programs/whip/</a>
NRCS	Federal	EQUIP	Farm Bill program, not yet funded; contact USFS annually re status
NRCS	Federal	Wildlife Habitat Incentives Program (WHIP)	<a href="http://grants.firesafecouncil.org">http://grants.firesafecouncil.org</a>
U. S. Fish & Wildlife Service	Federal	WUI/Community Assistance	<a href="http://www.fs.fed.us/r5/spf/about/coop-ea.shtml">http://www.fs.fed.us/r5/spf/about/coop-ea.shtml</a>
USFS	Federal	Community and Private Lands Fire Assistance	see EAP
USFS	Federal	Community Protection (CP)	see EAP

National Park Service	Federal	WUI/Community Protection	<a href="http://www.fs.fed.us/spf/coop/programs/loa/flp.shtml">http://www.fs.fed.us/spf/coop/programs/loa/flp.shtml</a>
USFS	Federal	Economic Action Program (EAP)--Pilot Projects	<a href="http://www.fs.fed.us/spf/coop/programs/loa/fsp.shtml">http://www.fs.fed.us/spf/coop/programs/loa/fsp.shtml</a>
USFS	Federal	Economic Recovery Program (EAP)	<a href="http://www.fs.fed.us/spf/coop/programs/loa/flep.shtml">http://www.fs.fed.us/spf/coop/programs/loa/flep.shtml</a>
USFS	Federal	Forest Legacy Program	see Forestlands Enhancement Program (FLEP)
USFS	Federal	Forest Stewardship Program	contact CDF
USFS	Federal	Forestland Enhancement Program (FLEP)	see Forestlands Enhancement Program (FLEP)
USFS	Federal	Forestry Incentives Program (FIP)	<a href="http://www.na.fs.fed.us/urban/">http://www.na.fs.fed.us/urban/</a>
USFS	Federal	Stewardship Incentive Program (SIP)	<a href="http://www.natlforests.org/consp_05_cap.html">http://www.natlforests.org/consp_05_cap.html</a>
USFS	Federal	Urban and Community Forestry Program	<a href="http://www.natlforests.org/consp_04_map.html">http://www.natlforests.org/consp_04_map.html</a>
USFS	Federal	WUI/State Fire Assistance (same as WUI/State Fire Assistance?--see CDF entry)	<a href="http://www.allstate.com/Community/PageRender.asp?Page=foundationmain.htm">http://www.allstate.com/Community/PageRender.asp?Page=foundationmain.htm</a>
USFS & National Forest Foundation (NFF)	Federal	Community Assistance Program (CAP)	<a href="http://www.gileswmeadfoundation.org/">http://www.gileswmeadfoundation.org/</a>
USFS & National Forest Foundation (NFF)	Federal	Matching Awards Program (MAP)	<a href="http://www.homedepotfoundation.org/">http://www.homedepotfoundation.org/</a>
USFS/Forest Products Lab	Federal	Woody Biomass Utilization	<a href="http://www.ncseonline.org/NCSSF/">http://www.ncseonline.org/NCSSF/</a>
Allstate Foundation	Private	Safe and Vital Communities/Catastrophe Response and Mitigation	<a href="http://www.nfwf.org">http://www.nfwf.org</a>
Giles W. and Elise G. Mead Foundation	Private	0	<a href="http://www.packard.org/">http://www.packard.org/</a>
Home Depot Foundation	Private	Healthy Communities and Wildland Forests	<a href="http://www.sacregfoundation.org/">http://www.sacregfoundation.org/</a>
National Council for Science and the Environment (NCSE)	Private	National Commission on Science for Sustainable Forestry	<a href="http://www.surdna.org">http://www.surdna.org</a>
National Fish and Wildlife Foundation (NFWF)	Private	Noxious/ invasive weed control and habitat protection	<a href="http://calwater.ca.gov/Solicitation/ERP_Solicitation.shtml">http://calwater.ca.gov/Solicitation/ERP_Solicitation.shtml</a>
Packard Foundation	Private	No fit	<a href="http://www.science.calwater.ca.gov/psp/psp_package.shtml">http://www.science.calwater.ca.gov/psp/psp_package.shtml</a>
Sacramento Regional Foundation	Private	No fit	<a href="http://ceres.ca.gov/foreststeward/html/financial.html">http://ceres.ca.gov/foreststeward/html/financial.html</a> and <a href="http://www.fire.ca.gov/ResourceManagement/CFIP.asp">http://www.fire.ca.gov/ResourceManagement/CFIP.asp</a>

Surdna Foundation	Private	Environment	<a href="http://www.resources.ca.gov/bonds_prop40.html">http://www.resources.ca.gov/bonds_prop40.html</a>
CALFED	State	Ecosystem Restoration Program	<a href="http://www.fire.ca.gov/ResourceManagement/VegetationManagement.asp">http://www.fire.ca.gov/ResourceManagement/VegetationManagement.asp</a>
CALFED	State	Science Program	<a href="http://resources.ca.gov/eem/">http://resources.ca.gov/eem/</a>
CDF	State	California Forest Improvement Program (CFIP)	<a href="#">not defined</a>
CDF	State	Prop 40	<a href="http://www.wcb.ca.gov/Pages/habitat_enhancement_and_restoration_program.html">http://www.wcb.ca.gov/Pages/habitat_enhancement_and_restoration_program.html</a>
CDF	State	Vegetation Management Program (VMP)	<a href="#">none found</a>
Resources Agency	State	Environmental Enhancement and Mitigation Program (EEMP)	<a href="#">none found</a>
Sierra Nevada Conservancy	State	not yet funded	<a href="http://www.fpl.fs.fed.us/tmu/grant/biomass-grant.html">http://www.fpl.fs.fed.us/tmu/grant/biomass-grant.html</a>
Wildlife Conservation Board / CA Dept of Fish & Game	State	Habitat Enhancement and Restoration Program	<a href="http://www.ca.blm.gov/caso/pilt_questions_and_answers.html">http://www.ca.blm.gov/caso/pilt_questions_and_answers.html</a>

#### Appendix 4. Contracts and Grants Dates and Dollars

Sources	Type*	Description	Concepts Due	Appl. Due or Contact Info	Match (%)	Avg. Amount	Award Dates	Length
Placer County	County	HR 2389 Title III	N/A	Mid-August	None, but the higher the match the more likely approval	\$35,000 total avail. annually	early November	
PG&E	Enterprise	TBD						
BLM	Federal	Community Assistance	Early February preceding the next Federal budget year	Early March to early April	10%	\$56,000	Based on agency timelines and budgets	18 months
BLM	Federal	Payment in Lieu of Taxes (PILT)	Early February preceding the next Federal budget year	Early March to early April	50/50	\$88,000	Based on agency timelines and budgets	18 months
CDF (through USFS SFA Program)	Federal	WUI/State Fire Assistance		June 21, 2004	None, but the higher the match the more likely approval			
EPA	Federal	Assessment and Watershed Protection Program Grants (AWPPGs)		March 1, 2005	Projects must involve diverse partnerships of ideally five organizations that contribute funding, land, technical assistance, workforce support, and/or other in-kind services	\$5,000-\$20,000; \$10,000 average	mid-June 2005	
EPA & partners	Federal	Five-Star Restoration Matching Grants Program	mid-December	mid-March			Summer	
EPA Region 9	Federal	Wetlands Program Development Grant (WPDG)		Feb 28, 2005	25%; \$3M cap on Federal share	FY 2005: \$255 million total available		up to 3 years
FEMA	Federal	Pre-Disaster Hazard Mitigation Grants (PHMG)	N/A	Applications are accepted year-round. The cut off for the next fiscal year is the end of January. Contact Cliff Heitz for details	Cost share rates vary from 50 to 75%		Based on agency timelines and budgets	10 years

National Park Service	Federal	WUI/Community Protection		Contact Mike Brenner for details	Cost share varies			5-15 years
NRCS	Federal	EQIP	Not defined	This program identified in the Farms Bill; has variable funding by Congress. Check with NRCS yearly to see if program funds become available	Not defined	Not defined	Not defined	Not defined
NRCS	Federal	Wildlife Habitat Incentives Program (WHIP)	Early February preceding the next Federal budget year	Early March to early April	None, but the higher the match the more likely approval	71000	Based on agency timelines and budgets	18 months
U. S. Fish & Wildlife Service	Federal	WUI/Community Assistance		Early February	20%	\$20-50,000 and up	May	1 year
USFS	Federal	Community and Private Lands Fire Assistance		Early February	20%	\$20-50,000 and up	May	1 year
USFS	Federal	Community Protection (CP)	Varies; when fiscal year budget known, then usually Nov-Dec	Varies When fiscal year budget known, then usually Feb	20%	\$15,000-\$25,000		1 year
National Park Service	Federal	WUI/Community Protection	Contact: Jhenshaw01@fs.fed.us or jeff.calvert@fire.ca.gov		25%			
USFS	Federal	Economic Action Program (EAP)--Pilot Projects	Contact: CDF: Jeff Calvert (916) 653-8286 FS: Sandy Stone (707) 562-8918		50/50 to 25/75 (fed/non-fed)			
USFS	Federal	Economic Recovery Program (EAP)	Contact: sstone01@fs.fed.us; funding problematic so check for current year funding		25%			
USFS	Federal	Forest Legacy Program						
USFS	Federal	Forest Stewardship Program	Contact CDF		50/50	88000	Based on agency timelines and budgets	18 months

USFS & National Forest Foundation (NFF)	Federal	Community Assistance Program (CAP)						
USFS & National Forest Foundation (NFF)	Federal	Matching Awards Program (MAP)					Quarterly	
USFS/Forest Products Lab	Federal	Woody Biomass Utilization		Due dates set in January based on estimated available funding				
Allstate Foundation	Private	Safe and Vital Communities/Catastrophe Response and Mitigation						
Giles W. and Elise G. Mead Foundation	Private	0						
Home Depot Foundation	Private	Healthy Communities and Wildland Forests	N/A			\$3,000-\$5,000		
National Council for Science and the Environment (NCSE)	Private	National Commission on Science for Sustainable Forestry		No formal deadlines; applications accepted year-round		\$25,000-\$250,000	Grants are approved three times per year: February, May and September	Varies
National Fish and Wildlife Foundation (NFWF)	Private	Noxious/ invasive weed control and habitat protection		38310		No limit on individual grants; total funding \$20M for 20-40 grants	June 2005	up to 3 years
Packard Foundation	Private	No fit		37991		\$150,000 to \$1.5 million		3 years
Sacramento Regional Foundation	Private	No fit			25% minimum	\$5,000		
Surdna Foundation	Private	Environment	Early Feb	Contact CDF				



CALFED	State	Ecosystem Restoration Program		Contact CDF NYP for details	Landowner pays a percentage of the cost of the burn based on the benefits accrued to the landowner and the benefits to the public in general. Cost also varies depending on the size and complexity of the burn		Priority given to projects that fit within a unit's priority areas (e.g., those identified through the Fire Plan) & those considered to be of most value to unit.	
CALFED	State	Science Program		Requirements published annually in September; applications due in November		\$10M total annually	April 15--list goes to Caltrans for decision	admini stered by Caltran s
CDF	State	California Forest Improvement Program (CFIP)						
CDF	State	Prop 40						
CDF	State	Vegetation Management Program (VMP)						
Resources Agency	State	Environmental Enhancement and Mitigation Program (EEMP)						
Sierra Nevada Conservancy	State	not yet funded	March	May		\$50,000 to \$250,000	June	
Wildlife Conservation Board / CA Dept of Fish & Game	State	Habitat Enhancement and Restoration Program						

## **Appendix 5. Bibliography**

### **HIDDEN FALLS REGIONAL PARK REPORT**

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California Native Plant Society; Inventory of Rare and Endangered Vascular Plants of California; Sacramento, CA, 1994.

County of Placer; Agreement between J. Spears Family Enterprises and County of Placer, dated November 22, 2003; Covering acquisition of Spears Ranch by County.

County of Placer; Agreement between Bradley A. Spears and Gayle L. Spears and County of Placer, dated November 21, 2003; Covering continued use of Spears Ranch property.

County of Placer, Board of Supervisors; Resolution 2003-292, covering purchase of Spears Ranch Property.

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Pavlik, Bruce M, Muick, Pamela C., Johnson, Sharon, Popper, Marjorie; Oaks of California; Cachuma Press, Los Olivos, CA, 1991.

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Placer County Planning Department; Initial Project Application, Didion Park; Auburn, CA 2005.

University of California Integrated Hardwood Range Management Program, Oaks 'n' folks, various issues, Berkeley, CA 2000-2006.

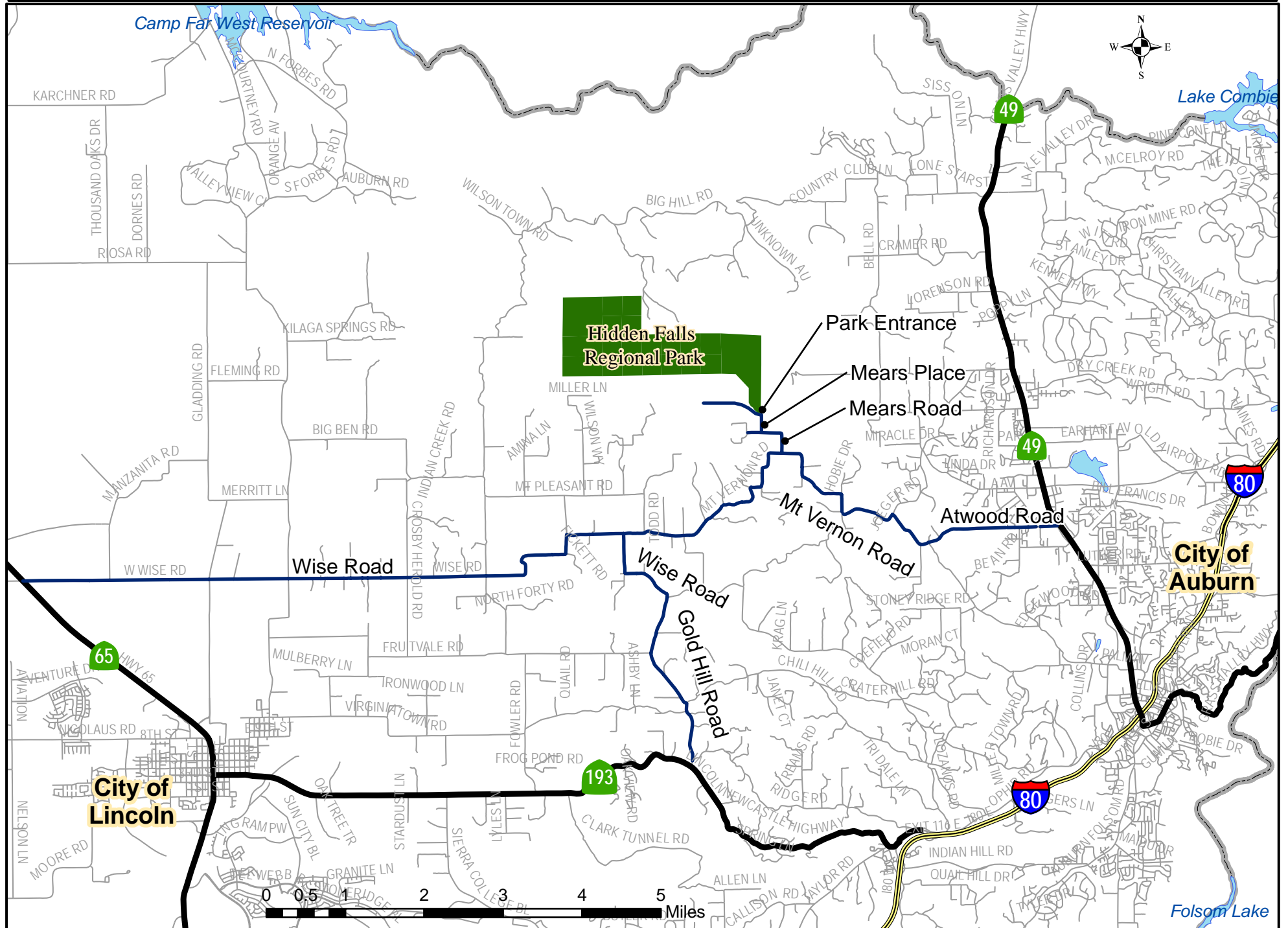
U.S. Dept. of Agriculture/Forest Service; Tree Characteristics for *Quercus douglasii*, *Quercus lobata*, *Quercus wislizenii*, *Pinus sabiniana*, at internet site <http://www.fs.fed.us/database/feis/plants/tree>.

U.S. Dept. of Agriculture/Forest Service; Proceedings of a Symposium on Oak Woodlands: Ecology, Management, and Urban Interface Issues, March 19-22, 1996, San Luis Obispo, California; General Technical Report PSW-GTR-160; Dec., 1997.

U.S. Dept. of Agriculture/Natural Resource Conservation Service; Standards for Fuelbreaks and Shaded Fuelbreaks, Washington, D.C.

U.S. Dept. of Agriculture/Forest Service; Proceedings of the Fifth Symposium on Oak Woodlands: Oaks in California's Changing Landscape, October 22-25, 2001, San Diego, California; General Technical Report PSW-GTR-184; Feb., 2002.







# Hidden Falls Regional Park Parcel Data / Zoning

F-B-X 20 AC. MIN.

F-B-X 20 AC. MIN.

F-B-X 160 AC. MIN.

F-B-X 50 AC. MIN.

F-B-X 40 AC. MIN.

F-B-X 50 AC. MIN. PD = 0.2

F-B-X 20 AC. MIN.

F-B-X 40 AC. MIN.

F-B-X 40 AC. MIN. PD = 0.2

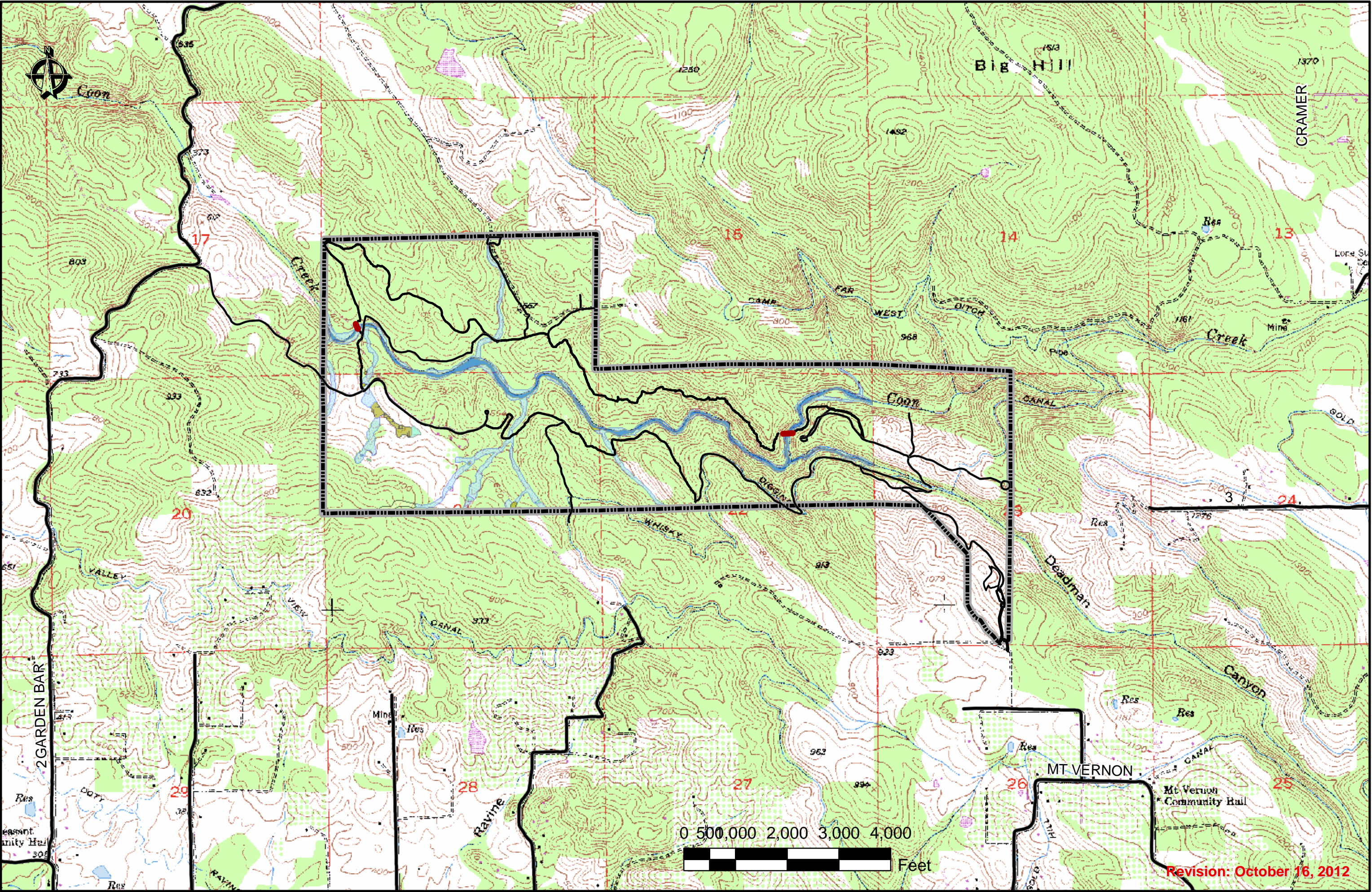
F-B-X 10 AC. MIN.

F-B-X 40 AC. MIN.

<Double-click to center text>



Hidden Falls Regional Park - Agricultural & Public Use Improvements - Topo Map



Revision: October 16, 2012



# **IMPROVING THE IRRIGATION INFRASTRUCTURE TO SUPPORT LONG TERM AGRICULTURE**

**Damage can be  
seen below the  
undermined canal**



**The main stock pond at the  
western end of the Hidden  
Falls property**

**The stock pond dam has  
been compromised by  
rodents and head cut**




**Existing Cattle Ranching  
at Hidden Falls Regional Park**



# Interpreting The Agricultural Heritage and Habitat Protection At Hidden Falls

## Hidden Falls REGIONAL PARK

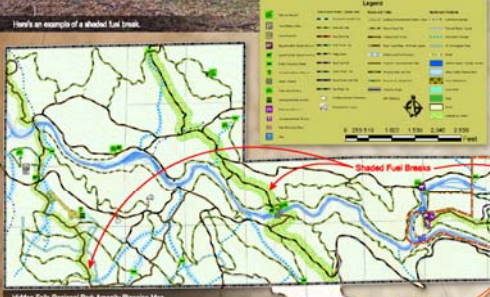


### Why Have These Areas Been Cleared?

As you hike, bike, or ride your horse through Hidden Falls Regional Park, you will see some trails that appear to be very wide. You may also notice some brush or wood piles alongside the trail. These trails are not just multiple-use trails; they are also "shaded fuel breaks."

### What is a Shaded Fuel Break?

Shaded Fuel Breaks are shaded because the taller trees and branches provide shade. Fuel is the material that fires burn including things like brush and branches. A break is where a wildfire will change, stop, or slow down because it has less fuel to burn. Fires are damaging to watersheds, air quality, wildlife habitat, archaeological sites, and other resources. Shaded fuel breaks are a way to reduce excess amounts of understorey or "fuel" that could make a wildfire stronger. Shaded fuel breaks also provide room for firefighters to battle a blaze.




Here's an example of a shaded fuel break.

Shaded Fuel Breaks


Hidden Falls Regional Park Ancestry Planning Map

First Phase of Hidden Falls Regional Park Opened to the Public on October 26, 2016

"The objective of a shaded fuel break is to reduce, modify, and manage fuels within designated areas in order to enhance mitigation efforts in the event of a wildfire situation. A shaded fuel break does not remove all vegetation in a given area."  
- U.S. Forest Service



Ladder fuels allow fire to move more easily from the ground into the trees.



## Hidden Falls REGIONAL PARK

### Grassland and Agriculture

Hidden Falls Regional Park has many acres of grasslands. Grasslands include many different types of plants and are a very important type of habitat. They supply food and shelter for many wild animals and birds. Ranchers also use grasslands to graze their livestock.

### Natural Benefits of the Grasslands

Many creatures benefit from the park's grasslands. Red-tailed hawk and western meadowlark seek many types of prey that live in the grasslands. Creatures such as insects, reptiles, and rodents can be found in the grasses. Other creatures such as the California ground squirrel search for food and hide in the grasses and brush. The grasses and plants also help filter rainwater run-off providing cleaner water in streams and ponds for fish and frogs.

### Agricultural Contributions

Thousands of gold miners moved to the Placer County area during the early 1850s. Local ranchers and farmers worked hard to meet the demand for food. The lush grasslands provided good grazing to raise livestock to feed the miners. Nearly 1,000 acres in Hidden Falls Regional Park have been grazed for over 100 years. Most of the grazing lands are located in the western part of the park. The Gold Rush ended long ago, but ranching and farming still play an important role in Placer County.

### Did You Know?

- California has over 300 species of native grasses.
- Many grasses grow deep roots that anchor the soil firmly in place. This helps keep soil from washing away and prevents erosion. Grasses also help filter the dust and pollutants out of storm water run-off. The plants help recycle nutrients back into the soil.
- Certain grass seeds have a stiff bristle called an awn that has sharp barbs that slope in one direction. These barbs help seeds to be buried in the earth so new plants can grow. The barbs also cause seeds to latch onto the coats of animals that walk by or the socks of passing hikers like a hitchhiker getting a ride. Have you picked up any natural seed hitchhikers today?



Example of an early 1900s ranching facility



Range cattle grazing near a stream

### Non-native Species



Wild Oats (Lolium sp.)



Wild Oats (Lolium sp.)



Wild Oats (Lolium sp.)



Wild Oats (Lolium sp.)



Wild Oats (Lolium sp.)



Wild Oats (Lolium sp.)



Wild Oats (Lolium sp.)



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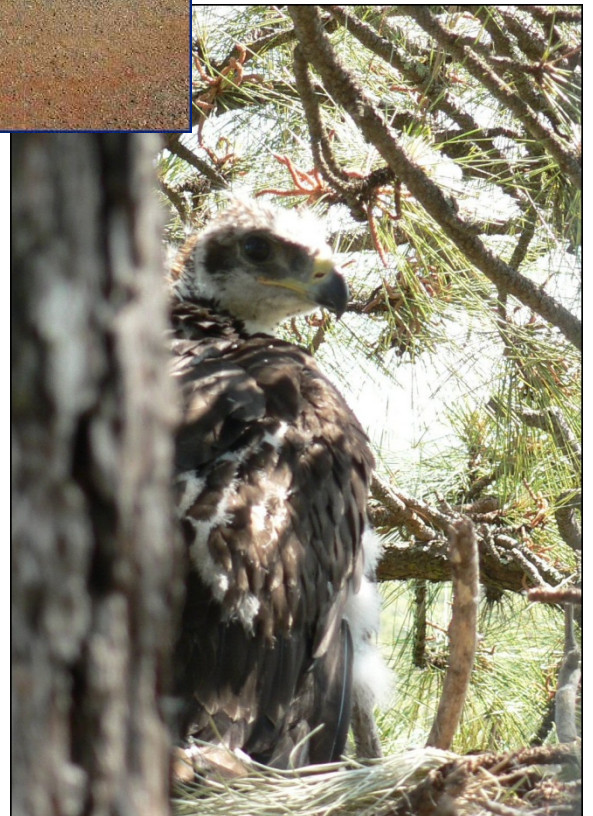


**A dirt maintenance road near the stock pond will receive all weather base rock to reduce erosion and dust.**



**Volunteers show their support for Hidden Falls, June 2012**

**One of the many who benefit from conservation, and habitat management at Hidden Falls Regional Park, this young Golden Eagle is one of two siblings that fledged on the property in 2012**



RECORDING REQUESTED BY

PLACER TITLE COMPANY

Escrow Number: 102-22682-LO

AND WHEN RECORDED MAIL TO

COUNTY OF PLACER  
11476 C AVENUE  
AUBURN, CA 95603



PLACER, County Recorder  
JIM MCCAULEY

**DOC- 2004-0149016**

Acct 2-PLACER TITLE

Friday, NOV 05, 2004 14:30:00

NOC \$0.00

Ttl Pd \$0.00

Nbr-0001181136

ac1/SL/1-5

SPACE ABOVE THIS LINE FOR RECORDER'S USE

## GRANT DEED

The undersigned grantor(s) declare(s):

Documentary transfer tax is: ☒ City Transfer Tax: \$0.00

(X) computed on full value of property conveyed, or

( ) computed on full value less value of liens and encumbrances remaining at time of sale.

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **BOR PROPERTIES, LLC , A CALIFORNIA LIMITED LIABILITY COMPANY**

Hereby GRANT(S) to **COUNTY OF PLACER , A POLITICAL SUBDIVISION**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

See Exhibit "A" attached hereto and made a part hereof.

Dated: November 04, 2004

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE

SAME AS ABOVE

Name

Street Address

City & State

Page 1 of 3 - 11/4/2004

O:\Grandeed.doc (4/2002)



SIGNATURE PAGE FOR GRANT DEED

BOR PROPERTIES, LLC, a California limited liability company

By: James J. Didion *his attorney in fact*  
James J. Didion, Member

Paul S. Aronowitz  
*attorney in fact*

By: The Dennis and Nancy Meyer Family Trust dated March 6, 1997, Member

Dennis G. Meyer  
Dennis G. Meyer, Co-Trustee

Nancy I. Meyer  
Nancy I. Meyer, Co-Trustee

By: The Aronowitz Family Trust, Member

Paul S. Aronowitz  
Paul S. Aronowitz, Co-Trustee

Diane J. Aronowitz  
Diane J. Aronowitz, Co-Trustee

STATE OF CALIFORNIA  
COUNTY OF Placer

On 11/4/04 before me, L. ORY, personally appeared  
Dennis G. Meyer, Nancy I. Meyer, Paul S. Aronowitz,

Diane J. Aronowitz  
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument

WITNESS my hand and official seal.

Signature: L. Ory  
Commission Expiration Date: 11/8/05



MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE, IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE

SAME AS ABOVE

Name

Street Address

City & State

O:\Stl\Pkg.doc (4/2002)

**EXHIBIT "A"**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

A PORTION OF THE WEST ONE-HALF OF SECTION 23, TOWNSHIP 13 NORTH, RANGE 7 EAST, MDM. DESCRIBED AS FOLLOWS:

BEGINNING AT A ONE AND ONE-HALF INCH DIAMETER IRON PIPE MARKING THE SOUTH ONE-QUARTER CORNER OF THE ABOVE DESCRIBED SECTION 23, THENCE SOUTH 88 DEGREES, 48 MINUTES, 35 SECONDS WEST ALONG THE SOUTH LINE OF SAID SECTION 23 FOR A DISTANCE OF 229.58 FEET; THENCE LEAVING SAID SOUTH LINE THE FOLLOWING (13) CONSECUTIVE COURSES:

- 1) NORTH 34 DEGREES, 01 MINUTES, 42 SECONDS WEST FOR A DISTANCE OF 92.02 FEET; 2) NORTH 44 DEGREES, 14 MINUTES, 12 SECONDS WEST FOR A DISTANCE OF 57.88 FEET; 3) NORTH 50 DEGREES, 33 MINUTES, 43 SECONDS WEST FOR A DISTANCE OF 88.89 FEET; 4) NORTH 44 DEGREES, 13 MINUTES, 39 SECONDS WEST FOR A DISTANCE OF 55.27 FEET; 5) NORTH 30 DEGREES, 47 MINUTES, 28 SECONDS WEST FOR A DISTANCE OF 64.08 FEET; 6) NORTH 30 DEGREES, 16 MINUTES, 58 SECONDS WEST FOR A DISTANCE OF 82.57 FEET; 7) NORTH 37 DEGREES, 00 MINUTES, 48 SECONDS WEST FOR A DISTANCE OF 66.45 FEET; 8) NORTH 64 DEGREES, 13 MINUTES, 33 SECONDS WEST FOR A DISTANCE OF 100.68 FEET; 9) NORTH 35 DEGREES, 46 MINUTES, 27 SECONDS WEST FOR A DISTANCE OF 152.62 FEET; 10) NORTH 27 DEGREES, 37 MINUTES, 37 SECONDS WEST FOR A DISTANCE OF 150.09 FEET; 11) NORTH 00 DEGREES, 02 MINUTES, 10 SECONDS WEST FOR A DISTANCE OF 976.05 FEET; 12) NORTH 44 DEGREES, 49 MINUTES, 07 SECONDS WEST FOR A DISTANCE OF 1294.32 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 23; AND 13) SOUTH 89 DEGREES, 29 MINUTES, 07 SECONDS WEST ALONG SAID NORTH LINE FOR A DISTANCE OF 947.15 FEET TO THE WEST ONE-QUARTER CORNER OF SECTION 23; THENCE NORTH 01 DEGREE, 33 MINUTES, 55 SECONDS WEST ALONG THE WEST LINE OF SECTION 23 FOR A DISTANCE OF 2767.74 FEET TO THE NORTHWEST CORNER OF SECTION 23; THENCE SOUTH 87 DEGREES, 00 MINUTES, 24 SECONDS EAST ALONG THE NORTH LINE OF SECTION 23 FOR A DISTANCE OF 2759.61 FEET TO THE NORTH ONE-QUARTER CORNER OF SECTION 23; THENCE SOUTH 00 DEGREEEES, 18 MINUTES, 18 SECONDS WEST ALONG THE NORTH-SOUTH CENTERLINE OF SECTION 23 FOR A DISTANCE OF 5197.37 FEET TO THE POINT OF BEGINNING.



APN: 026-080-006 AND 026-080-016 PORTION

RESERVING THEREFROM AN EASEMENT FOR ROAD AND UTILITY PURPOSES AND APPURTENANCES THERETO OVER, UNDER AND ACROSS THE FOLLOWING DESCRIBED PROPERTY:

A STRIP OF LAND HAVING A RIGHT ANGLE WIDTH OF SEVENTY-FIVE (75.00) FEET LYING THIRTY SEVEN AND ONE-HALF (37.50) FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT A POINT ON THE SOUTH LINE OF THE ABOVE DESCRIBED SECTION 23, AND FROM SAID POINT AT A ONE AND ONE-HALF INCH DIAMETER IRON PIPE MARKING THE SOUTH QUARTER CORNER OF SAID SECTION 23 BEARS SOUTH 88 DEGREES, 48 MINUTES, 35 SECONDS WEST ALONG THE SOUTHERLY LINE OF SAID SECTION 23 FOR A DISTANCE OF 242.82 FEET; THENCE FROM THE POINT OF BEGINNING, LEAVING SAID SOUTH LINE NORTH 36 DEGREES, 41 MINUTES, 01 SECONDS WEST FOR A DISTANCE OF 111.43 FEET; THENCE NORTH 47 DEGREES, 07 MINUTES, 17 SECONDS WEST FOR A DISTANCE OF 60.00 FEET; THENCE NORTH 53 DEGREES, 23 MINUTES, 05 SECONDS WEST FOR A DISTANCE OF 119.21 FEET TO THE TERMINUS OF SAID EASEMENT.

NOTE: THE NORTHWESTERLY SIDELINE OF THE ABOVE DESCRIBED STRIP OF LAND SHALL BE LENGTHENED OR SHORTENED, AS THE CASE MAY BE, TO END IN THE NORTHEASTERLY LINE OF THE GRANTOR'S NAMED HEREIN AND THE SOUTHERLY LINE OF THE ABOVE DESCRIBED SECTION 23.

ACKNOWLEDGEMENT

CONSENT TO RECORDATION:

The County of Placer hereby consents to the recordation of the Multi-Purpose Trail Easement attached hereto, pursuant to authority conferred by Resolution No. 2004-284.

SIGNATURE

DATED: Mary Beth Dietrich Deputy Director, Facility Services  
11-05-04 TITLE:

ACCEPTANCE (1): BY AUTHORIZED AGENT:

This is to certify that the interest in real property conveyed by the deed or grant deed dated \_\_\_\_\_, 2004, from BOR Properties, LLC, a California Limited Liability Company, to the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No. 2004-284 of said Board adopted on October 5, 2004, and the Grantee consents to the recordation thereof by it's duly authorized agent.

SIGNATURE

COMPLETED BY (TYPE OR PRINT)

DATED: 11-05-04 Mary Beth Dietrich Mary Dietrich  
TITLE: Deputy Director of Facility Services

ACCEPTANCE (2): BY BOARD OF SUPERVISORS:

This is to certify that the interest in real property conveyed by the deed or grant deed dated \_\_\_\_\_, 20\_\_\_\_, from \_\_\_\_\_

to the County of Placer, a government agency, is hereby accepted by the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No. \_\_\_\_\_ of said Board adopted on \_\_\_\_\_, and the Grantee consents to the recordation thereof by it's duly authorized agent.

Dated: \_\_\_\_\_

Chairman, Board of Supervisors of the County of Placer



RECORDING REQUESTED BY:  
PLACER TITLE CO.

110-1278

RECORDING REQUESTED BY AND

WHEN RECORDED, PLEASE MAIL TO:

County of Placer

Department of Facility Services

1476 C Avenue

Auburn, CA 95603

Attn: Property Manager

DOCUMENTARY TRANSFER TAX:

Exempt pursuant to CA R&T §11922

APNs: 026-072-045, 026-072-047, 026-072-049-510,  
026-072-050-510, 026-072-054 through 026-072-063  
and 026-080-065 through 026-080-072, inclusive



PLACER, County Recorder

JIM MCCAULEY

DOC- 2003-0210569

Acct 2-PLACER TITLE

Tuesday, DEC 23, 2003 14:30:00

NOC \$0.00

Ttl Pd \$0.00

Nbr-0001000882

adn/DN/1-6

Original in Acquisition File

### GRANT DEED

For good and valuable consideration, the receipt of which is hereby acknowledged, The Trust for Public Land, a California nonprofit public benefit corporation ("Grantor"), does hereby grant, bargain, sell and convey to the County of Placer, a political subdivision of the State of California ("Grantee"), and its assigns, all the real property situated in the County of Placer, State of California, described at Exhibit A attached hereto and incorporated herein by this reference (the "Property").

SUBJECT to easements, reservations and restrictions of record.

TOGETHER WITH a nonexclusive easement for vehicular and nonmotorized transportation (including without limitation pedestrian, bicycle or equestrian) ingress and egress, forty (40) feet in width, lying twenty (20) feet on each side of the centerline of the existing private road as shown on the Record of Survey recorded July 15, 1983 at Book 9, Placer County Records of Surveys, Page 53 with a vehicular road surface of no more than twenty-four (24) feet in width with the exception of pull-outs as may be required for fire control purposes, from the intersection of Garden Bar Road, a public road, to the intersection of such existing road and the western boundary of the property described herein, and an appurtenant drainage and cut or fill slope easement as needed to maintain such access easement. All trails and paved roads benefiting Grantee shall be contained within said forty (40) foot easement area.

TO HAVE AND TO HOLD, the above granted and described premises, together with all tenements, hereditaments, and appurtenances, including water and water rights, minerals and mineral rights, buildings, structures, improvements and easements, thereto belonging or



appertaining, if any, and any reversions, remainders, rents, issues, or profits thereof, unto the COUNTY OF PLACER.

IN WITNESS WHEREOF, Grantor has executed this instrument this 18th day of December, 2003.

THE TRUST FOR PUBLIC LAND,  
a California nonprofit public benefit corporation

By: M. Holly Haugh  
M. Holly Haugh, Regional Counsel

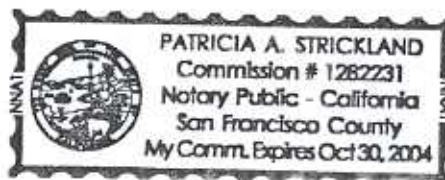
## ACKNOWLEDGMENT

State of CALIFORNIA )  
 )ss.  
County of SAN FRANCISCO )

On this 18th day of December, 2003, before me, Patricia A. Strickland, a notary public, personally appeared M. Holly Haugh, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity and that by her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

Patricia A. Smith  
Notary Public

My commission expires 10/30/04



# ACKNOWLEDGEMENT

State of California }  
County of Placer }

On \_\_\_\_\_ before me, \_\_\_\_\_ (name, title of officer),  
Personally appeared \_\_\_\_\_

► personally known to me -OR- ► proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
Signature

## CAPACITY CLAIMED BY SIGNER

- INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES  
\_\_\_\_\_  
TITLE(S)  
\_\_\_\_\_  
COMPANY
- CORPORATE OFFICER(S)  
\_\_\_\_\_  
TITLE(S)  
\_\_\_\_\_  
COMPANY
- PARTNER(S)  
\_\_\_\_\_  
PARTNERSHIP
- ATTORNEY-IN-FACT  
\_\_\_\_\_  
PRINCIPAL(S)
- TRUSTEE(S)  
\_\_\_\_\_  
TRUST
- OTHER  
\_\_\_\_\_  
TITLE(S)  
\_\_\_\_\_  
TITLE(S)  
\_\_\_\_\_  
ENTITY(IES) REPRESENTED  
\_\_\_\_\_  
ENTITY(IES) REPRESENTED

## CONSENT TO RECORDATION:

The County of Placer hereby consents to the recordation of the Offer of Dedication attached hereto. The County does not accept said offer at this time, but reserves the right to do so in the future, pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002.

\_\_\_\_\_  
SIGNATURE

DATED: \_\_\_\_\_

\_\_\_\_\_  
TITLE:

## ACCEPTANCE (1): BY AUTHORIZED AGENT:

This is to certify that the interest in real property conveyed by the deed or grant deed dated \_\_\_\_\_, 20\_\_\_\_, from The Trust for Public Land, a California nonprofit public benefit corporation to the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002 and Resolution No. 2003-292 adopted November 18, 2003, and the Grantee consents to the recordation thereof by it's duly authorized agent.

DATED: December 22<sup>nd</sup> 2003

SIGNATURE

John Miller

COMPLETED BY (TYPE OR PRINT)

Thomas Miller

TITLE:

Director of Family Services

## ACCEPTANCE (2): BY BOARD OF SUPERVISORS:

This is to certify that the interest in real property conveyed by the deed or grant deed dated \_\_\_\_\_, 20\_\_\_\_, from \_\_\_\_\_ to the County of Placer, a government agency, is hereby accepted by the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No. \_\_\_\_\_ of said Board adopted on \_\_\_\_\_, and the Grantee consents to the recordation thereof by it's duly authorized agent.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Chairman, Board of Supervisors of the County of Placer

# Before the Board of Supervisors County of Placer, State of California

**In the matter of:** A Resolution authorizing the Director of Facility Services to execute the Purchase and Sale Agreement and any other documents necessary to complete the acquisition of approximately 961 acres of the Spears Ranch near Lincoln.

**Resol. No:** 2003-292  
**Ord. No:**  
**First Reading:**

The following RESOLUTION was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held November 18, 2003, by the following vote on roll call:

Ayes: SANTUCCI, WEYGANDT, GAINES, BLOOMFIELD

Noes: NONE

Absent: WHITE

Signed and approved by me after its passage.

THE FOREGOING INSTRUMENT IS A CORRECT  
COPY OF THE ORIGINAL ON FILE IN THIS OFFICE  
ATTEST

ANN HOLMAN  
Clerk of the Board of Supervisors, County  
of Placer, State of California  
*[Signature]*  
Deputy Clerk

Attest:  
Clerk of said Board

*[Signature: Ann Holman]*

*[Signature]*  
Chairman, Board of Supervisors

WHEREAS, the Trust for Public Land (TPL) holds an Option Agreement to purchase 961 acres of the Spears Ranch near Lincoln; and

WHEREAS, acquisition of the 961 acres meets the goals and objectives of the Placer Legacy Open Space and Agricultural Program; and

WHEREAS, on July 8, 2003, the Placer County Board of Supervisors authorized negotiations with TPL for the County's acquisition of this property.

THEREFORE, BE IT RESOLVED that the Placer County Board of Supervisors does 1) hereby authorize the Director of Facility Services to execute on behalf of the County a Purchase and Sale Agreement and any other documents necessary to complete the acquisition of approximately 961 acres of the Spears Ranch near Lincoln; 2) hereby authorize any disbursements of County funds necessary to complete the transaction; and 3) hereby consent to the recordation of the deeds for said property described in the Purchase and Sale Agreement.



Order No. 110-1278\*1  
Policy No. CNJP-PROFORMA

### EXHIBIT "A" LEGAL DESCRIPTION

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

#### PARCEL ONE:

THE SOUTH HALF OF SECTION 16, (ALSO KNOWN AS LOTS 66, 67, 72 AND 73, INCLUSIVE OF HEREDIA ESTATE), THE NORTH HALF OF SECTION 21, (THE EAST HALF OF SAID NORTH HALF ARE LOTS 58 TO 61 INCLUSIVE OF HEREDIA ESTATE) AND THE NORTH HALF OF SECTION 22 (ALSO KNOWN AS LOTS 54 TO 57 AND 62 TO 65, INCLUSIVE OF HEREDIA ESTATE, AS PER MAP IN THE OFFICE OF THE PLACER COUNTY RECORDER) ALL IN TOWNSHIP 13 NORTH, RANGE 7 EAST, MDB&M.

EXCEPTING THEREFROM LOTS 68, 69, 70 AND 71 OF THE HEREDIA ESTATE FILED IN BOOK A OF MAPS, AT PAGE 15, PLACER COUNTY RECORDS.

#### PARCEL TWO:

LOTS 68, 69, 70 AND 71, AS SHOWN ON THE MAP OF THE HEREDIA ESTATE FILED IN BOOK A OF MAPS, AT PAGE 15, PLACER COUNTY RECORDS, LOCATED IN SECTION 16, TOWNSHIP 13 NORTH, RANGE 7 EAST, MDM, PLACER COUNTY, CALIFORNIA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 70, SAID POINT BEING IDENTICAL TO THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 16; THENCE FROM SAID POINT OF BEGINNING NORTH 89 DEGREES 26 MINUTES 37 SECONDS EAST ALONG THE NORTH BOUNDARY OF SAID LOTS 70 AND 71, A DISTANCE OF 2,693.07 FEET TO THE NORTHEAST CORNER OF SAID LOT 71, SAID POINT BEING IDENTICAL TO THE NORTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE SOUTH 02 DEGREES 37 MINUTES 09 SECONDS WEST ALONG THE EAST BOUNDARY OF SAID LOTS 71 AND 68 A DISTANCE OF 2,609.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 68, SAID POINT BEING IDENTICAL TO THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE SOUTH 89 DEGREES 23 MINUTES 05 SECONDS WEST ALONG THE SOUTH BOUNDARY OF SAID LOTS 68 AND 69 A DISTANCE OF 2,653.50 FEET TO THE SOUTHWEST CORNER OF SAID LOT 69, SAID POINT BEING IDENTICAL TO THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER; THENCE NORTH 01 DEGREES 44 MINUTES 54 SECONDS EAST ALONG THE WEST BOUNDARY OF SAID LOTS 69 AND 70 A DISTANCE OF 2,609.82 FEET TO THE POINT OF BEGINNING.

APNS: 026-072-045, 026-072-047, 026-072-049-510, 026-072-050-510, 026-072-054 THROUGH 026-072-063, INCLUSIVE AND 026-080-065 THROUGH 026-080-072, INCLUSIVE

#### PARCEL THREE:

AN EASEMENT FOR INGRESS AND EGRESS AS GRANTED TO BRADLEY ALAN SPEARS AND GAYLE LYNN SPEARS, HUSBAND AND WIFE AS JOINT TENANTS, IN DEED RECORDED OCTOBER 20, 1997 AS INSTRUMENT NO. 97-0065040.

EXCEPTING THEREFROM ANY PORTION LYING WITHIN PARCEL ONE DESCRIBED HEREIN ABOVE.

#### PARCEL FOUR:

Order No. 110-1278\*1

Policy No. CNJP-PROFORMA

**EXHIBIT "A" LEGAL DESCRIPTION**  
(Continued)

A NON-EXCLUSIVE EASEMENT FOR VEHICULAR AND NONMOTORIZED TRANSPORTATION (INCLUDING WITHOUT LIMITATION PEDESTRIAN, BICYCLE OR EQUESTRIAN) INGRESS AND EGRESS, FORTY (40) FEET IN WIDTH, LYING TWENTY (20) FEET ON EACH SIDE OF THE CENTERLINE OF THE EXISTING PRIVATE ROAD AS SHOWN ON THE RECORD OF SURVEY RECORDED JULY 15, 1983 AT BOOK 9, PLACER COUNTY RECORDS OF SURVEYS, PAGE 53 WITH A VEHICULAR ROAD SURFACE OF NO MORE THAN TWENTY-FOUR (24) FEET IN WIDTH WITH THE EXCEPTION OF PULL-OUTS AS MAY BE REQUIRED FOR FIRE CONTROL PURPOSES, FROM THE INTERSECTION OF GARDEN BAR ROAD, A PUBLIC ROAD, TO THE INTERSECTION OF SUCH EXISTING ROAD AND THE WESTERN BOUNDARY OF THE PROPERTY DESCRIBED HEREIN, AND AN APPURTENANT DRAINAGE AND CUT OR FILL SLOPE EASEMENT AS NEEDED TO MAINTAIN SUCH ACCESS EASEMENT. ALL TRAILS AND PAVED ROADS BENEFITING GRANTEE SHALL BE CONTAINED WITHIN SAID FORTY (40) FOOT EASEMENT AREA.





Placer County  
Department of Facility Services  
11476 C Avenue  
Auburn, CA 95603

## NOTICE OF EXEMPTION

To: X County Clerk  
County of Placer

\_\_\_\_ Office of Planning & Research  
1400 Tenth Street, Room 121  
Sacramento, CA 95814

**Project Title:** Spears Ranch Acquisition

**Project Location:** Agreement of Purchase and Sale for approximately 961 acres of the Spears Family Ranch located on Garden Bar Road near Lincoln, in unincorporated Placer County. (APNs: 026-072-045, 026-072-047, 026-072-049-510, 026-072-054 through 026-072-063 inclusive, 026-080-065 through 026-080-072 inclusive, and 026-072-050-510). The Property is separated into one 40-acre parcel on which a residence is located and remaining parcels totaling approximately 921 acres.

**Description of Project:** The scope of this Project includes the preparation of a Purchase and Sale Agreement, and its execution by the County of Placer and The Trust for Public Land.

**Name of Public Agency Making Environmental Determination:** Placer County Department of Facility Services.

**Name of Person or Agency Carrying Out Project:** Placer County Department of Facility Services, Property Management Division.

**Reasons Why Project is Exempt:** The acquisition is categorically exempt from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15316. That section provides for the transfer of ownership of land in order to establish a park where the land is in a natural condition and a park management plan has not been prepared. Any future park development will require discretionary action by the Placer County Board of Supervisors. The acquisition is also exempt from CEQA under Guidelines Sections 15317 and 15325, which each exempt property acquisitions made in order to maintain the open space character of an area. The acquisition is also exempt under Guidelines Section 15301 as it will continue existing facilities and activities on the site. It can also be seen with certainty that this action will have no significant impact under Guidelines Section 15061(b)(3).

**Lead Agency Contact Person:** Mary Dietrich

**Area Code/Telephone Number:** (530) 886-4957

*Mary Dietrich*

Lead Agency Signature

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through \_\_\_\_\_  
JIM McCAULEY, COUNTY CLERK  
By *[Signature]*  
11-18-03 Deputy Clerk

Date

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